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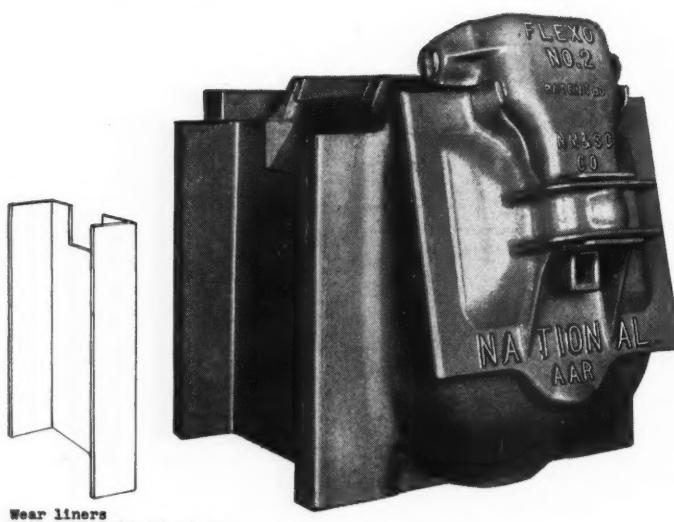
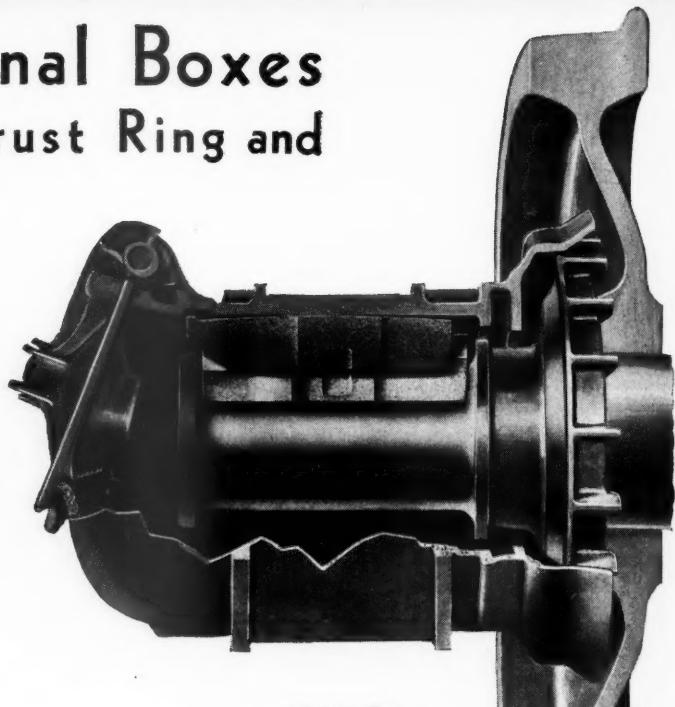
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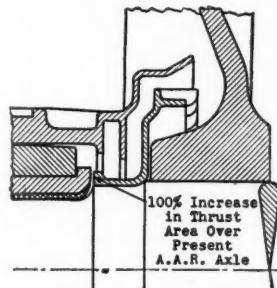
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| | Page |
|---|------------|
| Railroads Form Main Supply Line to North African Front | 456 |
| This article tells how co-operation between Army transportation officers and the local civil staff has resulted in a smooth-working machine on this important fighting front. | |
| Burlington Expands Largest Yard to Meet War-Time Demands | 459 |
| A description of the recently completed hump classification facilities at Galesburg, Ill., which saves thousands of car days and hundreds of locomotive hours monthly by expediting the movement of trains in five different directions. | |
| War Without Adequate Railroads? | 466 |
| An abstract of a paper by F. K. Mitchell, Assistant General Superintendent of Motive Power of the New York Central, in which he warns that continued disregard of railroads as No. 1 war activity will reduce the science of logistics to a chaotic muddle. | |
| EDITORIALS | |
| Facts—the Only Road to Victory | 453 |
| Galesburg Yard | 454 |
| Footwork Aids Paperwork | 454 |
| How Loadings Figures Could Be Made Useful Again | 455 |
| GENERAL ARTICLES | |
| Railroads Form Main Supply Line to North African Front | 456 |
| "Victory" Magazine Publicizes Railroads | 458 |
| Burlington Expands Largest Yard to Meet War-Time Demands | 459 |
| Katy's Report Appears In Pictures and Colors | 465 |
| War Without Adequate Railroads?, by F. K. Mitchell | 466 |
| Railroad Material Outlook in 1943, by A. L. Sorensen | 469 |
| Non-Op Case Opens | 471 |
| Diesel Demands Heard | 472 |
| COMMUNICATION | 473 |
| RAILROADS-IN-WAR NEWS | 474 |
| GENERAL NEWS | 477 |
| REVENUES AND EXPENSES OF RAILWAYS | 494 |
| FREIGHT OPERATING STATISTICS | 497 |

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1

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The Week at a Glance

NORTH AFRICA'S RRs: The railroads of North Africa are a principal means of supplying our active Army on the Tunisian front. An article herein describes the physical characteristics of these railways (three independent systems, subsidiary lines being narrow gage), suggesting some of the problems which, quite likely, they are encountering in doing a novel, exigent and large transportation job. Colonels Frank Ross and Norman Ryan are, respectively, the chief and acting chief of the Transportation Corps in the European Theater of Operations, and our article tells something of the background and previous careers of these men, responsible for transportation functions of great magnitude and importance.

THE GIST OF LOGISTICS: Since the last war, the military mind has made great progress in the importance which it has accorded to the Service of Supply—which is a mighty good thing, considering the enormous increase in supplies-per-man which mechanized warfare calls for. But where does the practice of the science of logistics begin? F. K. Mitchell, assistant general superintendent of motive power, N. Y. Central, has a paper, published herein, on this all-absorbing subject which—to your reporter—is the most informative expression which has yet appeared in print. He shows wherein and why the job of logistics does not begin with war products after the Army has them, but stretches way back to the mines and forests where these goods have their origin. What end is served by giving prior attention to finished products, if thereby undue disruption is caused to the stream of production *at its source?*

NAZIS BUNGLED THIS: The generalities in Mr. Mitchell's paper are only incidental—primarily he is specific. With all the substitution, reclamation and more intensive use of railway plant and rolling stock—there is a prospective shortage of 1,836 locomotives, 2,266 passenger cars, and 85,650 freight cars in sight—representing some railroad logistics which must be taken into account if the calculations of military logistics are going to prove effective. Mr. Mitchell gives quantities and spots where railroad logistics is being impeded—and he clinches his case from German experience, on which he presents some first-hand information. He thanks Heaven that Hitler was too self-satisfied to avoid a fatal error which this country still has a chance to avoid.

GALESBURG YARD: The Burlington's modern westbound classification yard—built rather because of the war than in spite of it—is the subject of a comprehensive article by our engineering editor elsewhere herein. Physical facilities, of course, are fully described—but, beyond that, operating information is given, revealing why and how this facility contributes sufficiently to the national interest in transportation to justify the scarce materials which were al-

located for its completion. An editorial suggests that there are other large railroad projects which similarly merit the approbation of the guardians of the nation's store of construction calories.

"CONSTRUCTIVE" LOADINGS? While popular attention to carloadings figures is waning, they appear still to be used by compilers of indexes of business activity, despite the utter loss of comparability by present-day loadings with those, even of a year ago. An editorial herein presents a table of 1941 and 1942 loadings, by months, with figures in parallel columns indicating what loadings *would have been* in 1941-42, if 1925-29 average ton-mile performance per carload were still persisting. The 902 thousand weekly loadings of October, 1942, are thus seen to be the equivalent of 1660 thousand carloads of the 1925-29 ton-mile content. The average carload today represents 87 per cent more transportation service than did the carload of the 'Twenties. The suggestion is made that current loadings should be multiplied by a factor which would compensate for the expansion in the ton or ton-mile content of this unit—thus deriving a "constructive" figure which would be truly significant, rather than deceptive to the unwary.

OWI LAUDS RAILROADS: The magazine "Victory"—launched by the Office of War Information at the expense of a lot of taxpayers' money, scarce paper and generous criticism from Congress—has at least one point to be noted in its favor. That is, it has given a publicity "break" to the railroads—just at a time when some fear was arising that this industry was getting something akin to "absent treatment." There has been government press-agentry of every conceivable variety and in generous quantity of activities, trivial in their contribution to the war in comparison to what the railroads are doing. They seemed to be pretending that railroads didn't exist—or, anyhow, not necessarily. Let's not dwell on that now, though. Elsewhere herein a short article tells more about how the OWI has publicized railroading in its new venture into periodical publishing.

B. OF R. T. ACCURACY: Martin H. Miller, national legislative representative of the B. of R. T., was on the Town-Meeting-of-the-Air radio program last week—in a discussion of war manpower problems. A member of the audience asked Mr. Miller if a relaxation of "featherbed rules" would not ease the manpower shortage—whereupon Mr. Miller professed ignorance of any such rules. The questioner informed Mr. Miller that recent articles had appeared in the press on this subject, and Mr. Miller implied that the articles referred to had their origin in the A. A. R. The leading editorial herein deals with the desirability of providing the public with indisputable facts, as a necessary basis for effective solution of transport problems.

NO AIR SPONSORS: House enthusiasts for the establishment of a separate committee on aviation (depriving the Interstate Commerce Committee of jurisdiction) got their proposal to a vote this week, and lost 257 to 152. Objectors to the innovation pointed to the constructive record with aviation legislation of the present committee, and warned that a separate committee would tend to become a partisan aviation advocate (since it would have no responsibility to consider the national interest in the preservation of other agencies of transportation). Such advocacy for aviation would tend to arouse the present committee into advocacy for the agencies left in its jurisdiction (lest the national interest in them be overridden). Thus inter-agency rivalries would be fought out on the floor before uninformed Congressmen, rather than peacefully adjudicated by experienced committeemen. Division on the proposal did not follow party lines, by agreement of the leaders.

WAGE HEARINGS BEGUN: The Non-Ops wage case and the make-jobs-on-Diesels case hearings opened before emergency boards in Chicago this week, while adjudication of the Pacific Electric controversy got under way out on the Coast. Initial proceedings in the first two cases are reported in the feature pages herein—the last-named in the news pages.

BURCHMORE ADMONITORY: It would be a mistake to dismiss the National Resources Planning Board's report, recommending railroad socialization, as just another ponderous product of self-satisfied academic obfuscation. Instead, this railroad report is merely a part of a comprehensive program of the bureaucracy for all-industry "planning" and socialization. The railroad report cannot, then, be dismissed as likely to fall of its own weight. Its proposals for the railroads are a necessary part of the general socialist program—hence these are likely to have supporters in quarters to which the superficial observer would not ascribe the slightest interest in transportation. A missile which many have taken to be a dud may turn out, actually, to be a time-bomb. Such, in effect, is the advice which N. I. T. League Counsel Burchmore has given in a speech reported in the news pages herein.

MR. MOISE DISCHARGED: Last week we reported criticisms which President Moise of the War Materials Corp. (organized by the government to produce high-cost scrap) directed at the WPB. Now Mr. Moise is out of a job, by WPB action. His criticism was that the WPB was preventing the high-cost scrap program from progressing beyond its initial trickle, and he predicted that the resulting scrap shortage would be reflected in a shortage of steel, which "claimant agencies" (including railroads) are clamoring for—because, without it, they can't do the job the nation requires of them.



Railroads Should Fight this Saboteur

... BUT WHY NOT GO ALL THE WAY?

THOUSANDS of railway structures today have a very definite and vital part in our war effort. The monetary loss in the destruction of a building or interlocking tower may be inconsequential compared with the possible interruption to train service.

Therefore, when contemplating a fire protective

step that may be a valuable aid in the country's war effort, why not go all the way? In addition to fireproofing the structure itself, see that the insulation of the wires and cables leading into and in the building is of a non-inflammable nature, such as Okonite-Okoprene and Okoseal. Both of these synthetic insulations are resistant to flame, moisture, ozone, sunlight, oil and chemicals. Both can be furnished in many colors for circuit identification.

Okonite's engineers are experts in the application of cable. Why not ask them for their recommendation as to how to best use these cables to give the utmost protection against fire and, at the same time, retain all the desirable electrical characteristics needed?

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RAILWAY AGE

Facts — the Only Road to Victory

Last week was phantasy week in transportation discussion. In a debate on the Town-Meeting radio program upon possible means of solving the shortage of manpower, Martin H. Miller, national legislative representative of the Brotherhood of Railroad Trainmen, was asked by a member of the audience whether abolishing "featherbed rules" might not be a means toward this end. Mr. Miller at first professed ignorance of such rules but when the questioner mentioned "recent articles" which told about them, the speaker replied that the Association of American Railroads had spent 190 million dollars on "propaganda"; his implication evidently being that the A.A.R. must have been the source of these articles.

It is surprising that the spokesman of the Brotherhood of Railroad Trainmen in the national capital does not know that the Association of American Railroads has no jurisdiction over labor matters; that, beyond its not issuing "propaganda" on the "featherbed rules," independent students have complained of their failure to secure information or statistics, even on request, from the Association, bearing on controversial labor questions. Mr. Miller has undoubtedly confused his figure on A.A.R. "propaganda" expenditures with the government's outlay for tanks or lend-lease.

Recent discussion of "featherbed rules" on the railroads has appeared in the New York Times and the Herald-Tribune on February 21 and in the March issue of the Reader's Digest. Mr. Miller certainly would not wish to state unequivocally that any of these publications would be in the slightest degree interested in furthering "propaganda" efforts the A.A.R. might care to undertake against the "featherbed rules," even if it were so inclined—as it clearly is not.

Last week also, the American Trucking Associations published an advertisement in which it was asserted that "with one-twentieth the railroad capacity, trucks haul one-fourth the load in less than half the time." The inaccuracy of that statement will be apparent to most informed people; those who desire the details will find them in the news pages herein, in the report of comment by A.A.R. President Pelley on this advertisement.

Now there are *facts*, as well as opinions, about railway working rules, and about the comparative performance of railway and truck transportation—which facts have physical existence just as much as the strength of materials used to build a battleship. The American people cannot deal with these facts as they actually exist, making the decisions about them necessary to protect the national interest in a strong transportation system, if they are deceived about the true character of these facts—any more than a designer of a battleship could put together a vessel which would not fall apart, if he were misled into believing that the materials he was working with were three times as strong as they actually are.

It would be worse than unpatriotic to supply a battleship or tank builder with sub-standard or inferior materials, whether maliciously or through carelessness. How much moral difference is there in preferring to the American people sub-standard facts about the relative performance of truck transportation; or in imposing upon them the belief that railway working rules do not waste manpower?

A wise man many years ago observed: "Without truth there must be a dissolution of society. . . . Do the devils lie? No; for then Hell could not subsist."

Efficiency
FOR VICTORY

Galesburg Yard

Described in this issue is an outstanding example of war-time railway construction—outstanding in its scope, in its execution, in the manner in which difficulties were overcome to permit its rapid completion, and outstanding in the benefits that are being derived from it in the interest of the war program. This example is the recently completed westbound freight classification facilities of the Burlington, at Galesburg, Ill., a key point on that system, where existing facilities, large as they were, had become a bottleneck under the great increases in freight traffic of the last two years, causing the loss of thousands of car-days and hundreds of locomotive-hours monthly through congestion and unavoidable delays—lost days and hours when war necessities and limited car and locomotive supplies were demanding that there be no such losses.

A "war baby" in every sense of the word, this million-dollar project was beset from the beginning with shortages in materials, delayed deliveries and shortages in construction labor, in spite of which it was pushed to completion in four months' time to meet the peak of last fall's traffic. Through the ingenious use of second-hand and substitute materials, thousands of tons of steel—in rails, in turnouts, in track fastenings and in structures—and thousands of pounds of other critical materials were spared for essential war purposes, and through the careful scheduling of operations and the use of work equipment to the greatest extent possible, the disadvantages of scant labor supply and constant turnover were largely overcome.

In the light of these accomplishments, the new facilities are a tribute to the railroad men who conceived them and carried them to completion for the advancement of the war program—and regardless of future peace-time considerations. They are a tribute also to those in Washington, on the War Production Board and in the War Department, who visualized the need and the advantages to be obtained, and who released the materials essential for their construction.

What was done on the Burlington on this project has been done with equal skill on other roads. Other similar projects, large and small, urgently needed in the interest of the ability of the railroads to continue to meet the demands of war traffic, await only the release of the necessary materials to put them under way. That there are needs for enlarged and improved railway facilities all over the country should be no more surprising to anyone than that individual manufacturers, large and small, everywhere have been called upon to expand and improve facilities to handle the superimposed load of war production. In fact, in the light of what the railways have experienced during the last decade or more, the real basis for surprise is that they have done so well in meeting the huge demands that have been made upon them with so little opportunity to expand their plant.

In view of these conditions, it is to be hoped that,

weighed in the balance with military needs and other essential projects in the interest of the war effort, further improvements essential to adequate war-time railway service will continue to receive favorable consideration by those who control the critical construction materials of the country. The new Galesburg classification yard is an indication that, properly presented and supported by convincing proof of their essentiality, they will be.

Footwork Aids Paperwork

Although the procurement of railway materials, equipment and supplies has been greatly complicated by reason of the broad demands of modern warfare, there will undoubtedly also be indirect results of today's events which will influence post-war materials procurement in numerous ways. That many of these influences will be favorable to the railways seems quite possible. Out of the many complications now involved in the procurement of controlled materials should come better mutual understandings between procurement officers, on the one hand, and the officers of the using departments on the other.

The departmental organization of railway forces has much to commend it. The noteworthy achievements of the American railways during the last three years are due in large measure to the efficiency which has been developed through such organization. Yet, in normal times, efficient procurement methods and efficient construction and maintenance procedures were often marred by lack of full interdepartmental co-operation.

The planning and paperwork involved in securing materials under the priorities, allocations and now the controlled materials plan have necessarily brought the personnel of procurement and using departments into much closer contact. The scrap campaigns on all roads—particularly the scrap committees whose membership includes officers from purchasing and stores, engineering, maintenance and mechanical departments—have served to bring about wider individual knowledge of company property and a realization by each of the other man's problems.

Since practically all of these committee inspections have required much footwork and close attention to details, the participants necessarily learned a great deal about their companies' fixed properties and rolling stock—knowledge which will aid in the more efficient discharge of individual duties. Somehow, the man who gets first-hand acquaintance with shops and enginehouses, terminals, track, bridges, buildings, signaling and communication systems and water service is usually a much more effective manager than the individual who persistently carries on his work from behind a desk within his own department, relying on correspondence and reports for his information. Among the ablest chief executives of American railways are many

who know their companies' properties from the remotest spur track to their main storehouses and locomotive shops and enginehouses.

How Loadings Figures Could Be Made Useful Again

A million freight cars loaded per week—back in the pre-depression days of the 'Twenties that used to be the figure, known to everybody who read even as much as the newspaper headlines, which signaled busy railroads and, hence, a busy and prosperous America. It is significant to note, therefore, that, if measured in terms of 1925-29 carloads, railroad traffic in not a single month of 1942 fell below 1.1 million cars a week; and in seven months of the year exceeded 1.5 million cars a week. If railroad traffic (revenue ton-miles) in October, 1942, is translated into carloads of the size and length of haul which prevailed 1925-29, then October, 1942, averaged 1,660,000 such carloads per week—or an increase of 44 per cent over the prosperous late 'Twenties.

Actually, of course, because the average car is laden so much more heavily now than it was back in the 'Twenties, and because it travels, on the average, so much farther, the published figures for October, 1942, carloadings averaged only 902,000 per week. Stated in another way, the average freight car loaded in Octo-

ber 'Twenties had enabled them to finance). This rate of improvement was immediately accelerated in the first month after Pearl Harbor (January, 1942) to 49 per cent, and throughout the year, month by month, the rate of transportation output per freight car loaded was steadily stepped up until, as the year drew to a close, each car loaded was yielding 87 per cent more transportation service than it was back in the 'Twenties.

Co-operation among the railroads, and by shippers and receivers of freight, in loading cars heavily and not detaining them unnecessarily, was an important contributing factor to this outcome—as was, also, the enlightened character of oversight of transportation provided by the government's office of Defense Transportation; and collaboration by the practical and experienced transportation departments of the armed services. There is, probably, no phase of the entire war production program where voluntary collaboration on the part of experienced men is relied upon to the degree obtaining in domestic mass transportation; nor any part of the war program which, so far, has proceeded more smoothly or effectively.

There is a point, however, in the increase of output beyond which human ingenuity and collaboration cannot go. When existing tools are used to the maximum of their capacity, the time comes when increased production requires a larger supply of tools (in the case of the railroads, cars, locomotives, rails and spare parts), and that is the situation today.

Incidentally, it is noted that the compilers of indexes

Carloadings for the Past Two Years—and What They Would Have Been with 1925-29 Average Carload Performance

| | 1941 | | | | 1942 | | | | 1941 | | 1942 | |
|-------|---|------|-----------------------------------|------|---|------|-----------------------------------|------|---|--|---|--|
| | Revenue Ton-Miles, % of 1925-29 Avg. | | Carloadings, % of 1925-29 Avg. | | Revenue Ton-Miles, % of 1925-29 Avg. | | Carloadings, % of 1925-29 Avg. | | Actual Carloadings Weekly Avg. (000) | "Constructive Carloadings"** (000) | Actual Carloadings Weekly Avg. (000) | "Constructive Carloadings"** (000) |
| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| Jan. | 103 | 76 | 127 | 85 | 691 | 940 | 772 | 1150 | | | | |
| Feb. | 101 | 77 | 125 | 84 | 717 | 939 | 781 | 1163 | | | | |
| Mar. | 106 | 80 | 137 | 83 | 767 | 1019 | 793 | 1308 | | | | |
| Apr. | 88 | 73 | 153 | 87 | 698 | 845 | 838 | 1474 | | | | |
| May | 111 | 83 | 152 | 83 | 832 | 1115 | 834 | 1526 | | | | |
| June | 117 | 85 | 155 | 82 | 878 | 1211 | 846 | 1560 | | | | |
| July | 119 | 85 | 158 | 83 | 853 | 1195 | 830 | 1578 | | | | |
| Aug. | 117 | 82 | 150 | 80 | 893 | 1277 | 870 | 1636 | | | | |
| Sept. | 112 | 80 | 147 | 79 | 885 | 1239 | 876 | 1629 | | | | |
| Oct. | 111 | 80 | 145 | 79 | 911 | 1266 | 902 | 1660 | | | | |
| Nov. | 115 | 86 | 153 | 82 | 856 | 1147 | 809 | 1513 | | | | |
| Dec. | 121 | 88 | ... | 82 | 761 | 1051 | 709 | 1325 | | | | |

* Derived by increasing 1925-29 carloads by the ratio in which revenue ton-miles have increased.

ber, 1942, performed 84 per cent more transportation service (as measured in tons and miles combined) than was performed by the average car loaded in the years 1925-29.

In the year prior to Pearl Harbor the average freight car loaded by the railroads performed about 36 per cent more transportation service than the average car produced in 1925-29. That improvement of more than one-third represented the cumulative result of steadily increasing railroad efficiency in a dozen years since the late 'Twenties (a betterment ascribable to the continually more skillful use which management made of the plant improvements which relative prosperity in

of business activity are continuing to use carloading figures as components of these indexes—a practice which must have introduced a considerable element of error into their compilations. By multiplying the weekly carloadings figure by a factor to indicate the greater production of the present carload (either in revenue tons or ton-miles), compared with car performance in the base period from which the index is calculated, it would be possible to derive a figure of "constructive carloadings," which would remove the element of error. By such a process, we should again have a current figure on carloadings which would carry meaning, rather than confusion, to the general public.

Railroads Form Main Supply Line To North African Front

Co-operation of Army transportation officers and local civilian staff results in a smooth-working transportation machine, but capacity is limited

WASHINGTON, D. C.

THE importance assigned by the Army to the transportation facilities on which units on the fighting fronts depend for supplies has again been forcibly stressed by two officers in key positions who have returned lately from inspections of the fields of operations.

Lt. Gen. Brehon B. Somervell, commanding general of the Services of Supply, just home after visiting the African and Near Eastern fronts, has declared that "this is now a war of transportation." And Col. Frank S. Ross, chief of transportation for the European theater of operations (including North Africa), has recently come back to Washington from the field of action in North Africa to say emphatically that transportation bottlenecks are the main obstacles to be overcome in accomplishing the purposes of the North African expedition.

Colonel Ross, Chief of Transportation, E. T. O.

It has been the job of Col. Ross to get supplies of every description from the waterfront to the battlefield in the order and in the quantities required to support operations. Advance planning, which included systematic loading and dispatch of ships and preparations for unloading and handling cargoes efficiently on arrival, has contributed greatly to the success of the transportation service, but it has depended equally on the physical facilities available in North Africa. The railway systems of the regions in which American troops are operating have been the backbone of their supply machinery in that area.

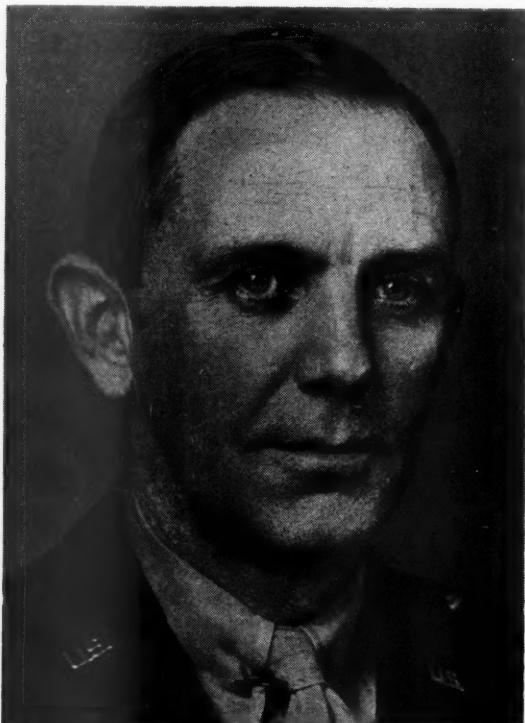
Col. Ross and the deputy chief of transportation in the European theater, Col. Norman A. Ryan, both are experienced transportation men, with railroad backgrounds. Though Col. Ross was born in Colorado—at Aspen, on March 9, 1893—he grew up in Texas, which he considers his home state, and still retains some of the characteristics of the native of the Southwest. While his father was in the employ of the old El Paso & Southwestern—now part of the Southern Pacific—he lived in a railroad atmosphere from which he has never been able to separate himself since. Even before he was in his teens he was—unofficially—in active railroad service, calling yard crews and bearing messages.

For 27 years Col. Ross has been in the Army, beginning his service in 1916 by enlisting as a private in the Texas National Guard. In August, 1918, after advancing through the ranks of corporal and sergeant, he won a commission as second lieutenant. After the signing of the Armistice he elected to remain in the Army, and in 1920 he was promoted to the rank of first lieutenant in the infantry. After graduating in 1922 from the Infantry School at Ft. Benning, Ga., he served as professor of military science and tactics at North Dakota Agricultural College.

After promotion to the rank of captain in 1929 he at-

tended the command and general staff school of the Army at Ft. Leavenworth, Kan., from which he graduated in 1933. In 1936, he graduated from the Army War College, and in 1937, from the tank officers' course. He then was assigned to a tank regiment, but in the next year he was transferred to Washington, D. C., to a position in the supply division of the War Department. Between July, 1940, and May, 1942, he held various responsible places in the supply service, including those of chief of the transportation section of the General Staff, chief of the port and water section of the supply division, and operations officer in the transportation division. Meanwhile he had advanced in rank, being promoted to major in 1938, lieutenant colonel in 1941, and colonel in 1942, in which year he was named for his present post in the European Theater.

Col. Ryan was born in Superior, Neb., November 5, 1891. After attending public schools he entered the service of the Chicago, Burlington & Quincy at the age of 18, beginning as a clerk and stenographer in the operating department. Three years later he went with the Southern Pacific as a clerk in the operating department at Sacramento, Calif., but in 1913 he returned to the Burlington, filling positions as clerk at Alliance, Neb., Deadwood, S. D., and Sheridan, Wyo. In 1917 he entered the employ of the Los Angeles & Salt Lake



U. S. Army Signal Corps Photo

Col. Frank S. Ross



Map Adapted from Railway Gazette (London)

The Railways of Northwest Africa

Current newspaper dispatches report that American troops are now operating eastward of Tebessa.

(Union Pacific system) in the office at Los Angeles. Leaving railroad service in 1918 to enter the Army as Private Ryan, he was attached to the Railway Transportation Corps of the A. E. F. in France, where he rose through the ranks to become first lieutenant. Returning to civilian life in 1919, he entered the employ of the then Chicago, Milwaukee & St. Paul, with which he was continuously connected until called again into active military service. After working a short time in the office of the general superintendent at Chicago, he was transferred in 1920 to Milwaukee, Wis., where he was trainmaster of the terminals. In 1921, he was shifted to the Terre Haute division, being promoted in 1923 to assistant division superintendent at Terre Haute, Ind.

In 1924 Mr. Ryan was advanced to superintendent at Terre Haute, where he remained until his appointment to a similar position at Milwaukee in 1927. In 1928 he became superintendent of the consolidated Milwaukee division, composed of three former divisions. Four

years later he was promoted to assistant general manager of the Eastern lines, with offices in Chicago. In 1939 he was appointed general manager of the Western lines of the Milwaukee, with headquarters at Seattle, Wash., the position which he held when again called for active military service.

A Railroader Who Kept Close to the Army

When leaving the Army in 1919 Mr. Ryan was commissioned major in the Engineering Corps Reserve, acting as commanding officer of the 609th Engineers, Railway Battalion. In August, 1939, he was appointed chief of the transportation section, steam railroads, in the theater of operations, from which position he was advanced to his present post.

In his position as chief of transportation, Col. Ross has been responsible for the movement of American fighting men and their equipment in the entire European theater. He was thus responsible for planning and supervising the movement of that portion of the North African invasion force that originated abroad, as well as for the co-ordination of its movement with that of the force originating in this country. After landing operations in North Africa began he became responsible for the operation of highway, water and rail transportation services there, and in this connection became intimately familiar with the facilities upon which these operations depend.

Col. Ross on his recent return to Washington emphasized the magnitude of the task of transporting supplies between the ports and the battlefronts, and referred particularly to the difficulties arising from the relatively small capacity of the highways and railroads that must be employed.

For the purposes for which they were built the railroads of North Africa, Col. Ross said, are highly efficient transportation machines. Essentially, however, they consist of one main line, which runs roughly parallel to the northern coast of the continent, and a number of branches which extend from this main stem into the back country on one hand and down to the ports on the other. This main line he described as an excellent piece of railroad construction, well graded and well maintained. It is, however, practically all single track. There are very few passing tracks, and sidings not only are infrequent in most sections but also are very short, generally having a capacity of only two or three cars.

While the main line trackage is now almost entirely



Col. Norman A. Ryan

standard gage, many of the branches that serve the ports and interior points on which troop operations are based are narrow gage lines. Traffic moving through junction points of these lines of different gages is slowed, of course, by the necessary transfer operations. Train movements are further slowed because of dependence on hand labor for many operations—such as loading fuel on locomotive tenders—and because no training dispatching system of the American type has ever been employed in this region. As would be expected, European operating methods are followed closely, and trains normally operate strictly by timetable.

The construction of the principal railroad lines in North Africa was particularly complimented by Col. Ross. The railroads are operated in three independent systems, the limits of which in general conform with the boundaries of the three political divisions—Morocco, Algeria, and Tunisia—of French North Africa in which American troops are now active. The principal tracks of each of these systems are well maintained, Col. Ross reported, with ballast, drainage, bridges, tunnels and miscellaneous structures generally comparable with the best American standards. Rail is fairly light, but adequate for the equipment in use.

In some sections concrete ties are extensively used, while wood and some steel also are employed. Turntables are used altogether for turning equipment, as there are few Y tracks.

Fuel and water supplies are scarce in some sections of North Africa, it is reported. In Morocco the lines west of Fez are electrically operated, with power obtained both from hydro-electric and steam plants. A 3,000 volt d.c. system is used, with overhead wires. In this section train movements are restricted to the capacity of the electrical supply.

On the steam operated lines coal, some of it in the form of briquets, is regularly used for fuel, but wood sometimes is substituted in emergencies.

While the railroad equipment in North Africa was well suited for its pre-war job, Col. Ross said, that job was of a different order of magnitude from the one it now must meet. The ability of the French to keep things from wearing out is well exemplified, he remarked, in the excellent operating condition of some very aged equipment. The railroad shops are supplied with fine tools, he added, and the shop employees, both Europeans and Arabs, are skilled mechanics whose abilities are proved by the smooth-running equipment generally found on the North African lines.

Because the regular practice has been to add equipment but not to replace it, cars and locomotives on these lines range in age and size from some that are relatively new and large in capacity to others that are very small and very old. The best locomotives are of better than 50,000 lb. tractive effort, Col. Ross explained, and the newest freight cars have four axles and relatively high capacity, but these are outnumbered by older, smaller units.

In discussing the problems arising from the character of the railroads in North Africa, Col. Ross emphasized the fact that the American forces in that area are not invaders in hostile territory, but are working along with the people of the country against a common enemy. For that reason, he said, it has not been necessary for Americans to take charge of normal railroad operations; on the contrary, the officers and employees of the three railroads have been generally eager to co-operate and to employ all the facilities at their command for the benefit of the American forces.

"Victory" Magazine Publicizes Railroads

THE accomplishments of railroads and railroad men for the effectiveness of the national war program are accorded six pages of superlative photographs (including an adequate quantity of well-worded and factual explanatory text) in the first issue of the luxurious magazine "Victory," published by the Office of War Information. It will be recalled that this costly and attractive publication—issued for the announced purpose of propagandizing the American cause in foreign lands — has aroused considerable opposition in Congress. Critics have directed their barbs, in particular, at an excessively laudatory article in the magazine about President Roosevelt and one authored by Vice-President Wallace, each of these leaders being accorded a full-page portrait in gorgeous color. The detractors of this publishing venture also observe that the populations which need to be convinced of the righteousness of our country's cause do not read English; hence, it is argued, the purpose of the periodical is political, aimed at a domestic audience. (If that suspicion is accurate, how come it is so hard to lay hands on a copy of this book?)

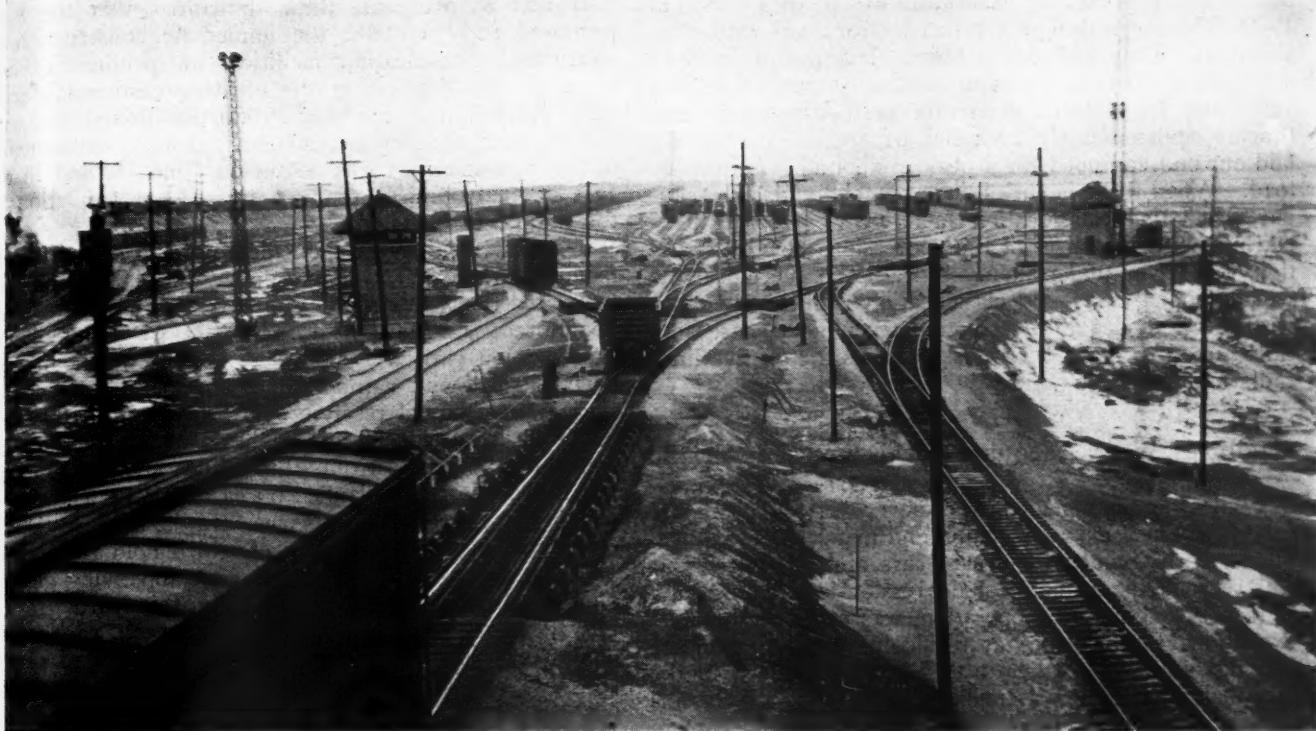
Be these criticisms valid or baseless—the magazine is technically a work of unquestionable excellence. It is mostly pictorial, and of a quality and quantity seldom surpassed. A reader would not have to command much English to derive from it a conviction that America is a magnificent place—in a wide variety of aspects. In size, "Victory" is 10½ in. by 14 in., printed on high-quality coated paper, and the first issue comprises 84 pages—hardly any of them without illustrations, many of which are in life-like color.

The six-page railroad article is headed "America's Railroads Are Helping Win Another War," and the text tells of the extent of the country's railroads and the magnitude of the job they are doing: "235,000 miles of crisscrossed metal that reaches every city and hamlet, every mining town and port, every granary and forge, every factory and ranch, every corner of a huge, mighty, fertile, productive country determinedly, angrily at war."

The specific war goods which the railroads are carrying are mentioned, and the text proceeds to declare: "A transportation system that has long been one of the great achievements of our modern industrial civilization has taken its important place in the war effort, is working with smoothness, with precision, and without pause, carefully synchronized with the highways, the airways, and the waterways of the land to achieve the maximum speed and certainty."

The text is just as laudatory of the behavior of railroad men as it is of the system as a whole. Photographs include a considerable proportion of a mile-long coal train, a full-page close-up of the head-end of a passenger locomotive; a double-page spread of a coal dumper (showing rail-water "synchronization"); a three-quarters view of a big freight locomotive; a conductor and engineman comparing watches. Some of the captions under the illustrations could be worded more accurately (as, for instance, one which reads "A thousand new locomotives of all types are coming from the foundries to keep U. S. railroads at war pitch").

It must be great to be able to publish a magazine without the necessity of any consideration whatever of production costs. But—not to close on a "negative" note: The OWI, in this case, at any rate, has done well by the railroads. Thanks, boys—we aren't used to it.



The New Westbound Classification Yard at Galesburg, As Seen From the Hump Yardmasters' Office

Burlington Expands Largest Yard to Meet War-Time Demands

**Added hump classification facilities at Galesburg,
Ill., junction of five lines, saves thousands of car
days and hundreds of locomotive hours monthly**

WITH the completion of new westbound hump classification facilities at Galesburg, Ill., modern in every respect as to layout and equipment, the Chicago, Burlington and Quincy has taken the war-time knots out of its operations at this key point in its system, expediting the movements of trains in five different directions, with savings of thousands of car days and hundreds of locomotive hours monthly over previous congested operations. Gone are the hours lost in doubling trains into short receiving tracks, in five-route classification in one classification yard, in inadequate departure tracks, and in conflicting movements that tied up or delayed each other.

Today, the new westbound facilities, supplementing and functioning entirely independent of the former classification facilities, are taking their share of the war load at this point. Nothing was spared in the overall design of the new facilities to insure their greatest effectiveness—length and number of tracks, hump layout, car retarders, signals, power-operated switches, communication systems and floodlights—and yet the effect of wartime priorities on materials is reflected in nearly every element in the project, through necessary re-design, substitutions, the adoption of second-hand materials, or de-

layed deliveries. Confronted throughout, too, with serious shortages and a constant heavy turnover in labor, the project is typical of the difficulties encountered generally in large scale war-time railway construction.

Junction of Five Routes

Galesburg, located 162 miles west of Chicago, is the hub of five important main lines of the Burlington, extending east to Chicago; west to Omaha, Neb., and Denver, Colo.; north to St. Paul and Minneapolis, Minn.; southwest to St. Louis, Mo., and Kansas City, with branches to the Southern Illinois coal fields; and southeast to Peoria, Ill., with other coal feeder branches in Southern Illinois. At Galesburg, primary classification is made for the important points along all of these lines. At Galesburg also are located a large engine terminal; the company's large timber preservation plant for treating crossties and bridge and building timbers; a well-equipped rail yard for storing and reconditioning rail, turnout material and track fastenings; a fully-equipped light car repair yard, with capacity for 310 cars; and many miles of tracks serving industrial plants.

Immediately prior to the recent yard improvements at

this point, the existing classification facilities, built in 1930-1932, were designed primarily for eastbound classification. They included a hump classification yard of 49 tracks, car-retarder equipped, a 9-track receiving yard, and an 11-track departure yard—the whole embracing approximately 55 miles of tracks, and ideally laid out and equipped for a peak eastbound classification load. When these facilities were planned and built, similar westbound classification facilities were contemplated, but, with the onset of the depression their construction was never undertaken. Since 1932, therefore, the well-equipped eastbound classification facilities, together with a few inadequate westbound receiving tracks, were called upon to handle car classifications for all five lines radiating from this point.

Facilities Were Adequate for Depression Traffic

While this arrangement was never very efficient and called for much extra switching and many reverse movements, with frequent delays to cars and locomotives, it was reasonably adequate for depression-level traffic, and, in fact, through skillful operation, was made the basis of exceptional performance as traffic increased in the late Thirties and still further in 1941. This is seen in the fact that at times it was making as many as 87 classifications and was handling up to 3,500 outbound cars in a 24-hour period. However, as traffic increased, car and locomotive delays increased and it was impossible to make as many classifications. Classified trains were delayed in leaving the yard over conflicting routes, missing connections at other points on the system, with further car and locomotive delays at these points. With the new facilities, 66 classifications for westbound cars and 60 classifications for eastbound cars can be made.

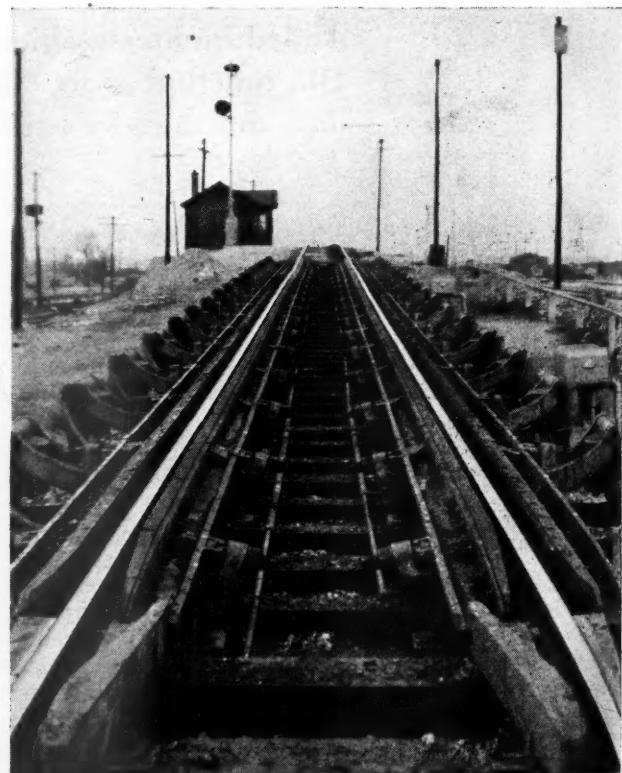
The causes of these delays at Galesburg are best understood by reference to the accompanying sketch plan of the present yard facilities at that point, the light lines indicating former trackage and the heavy lines the yard facilities and auxiliary trackage completed recently. On the basis of timetable directions, which will be employed in this article, the existing eastbound classification facilities lay in a general east and west direction, supplemented by a group of short westbound receiving tracks, which lay immediately north of the eastbound departure yard and in the approximate location of the new westbound receiving yard.

The disadvantages in the old arrangement lay first in the inadequacy of the westbound receiving yard and the doubling operations involved there; in the overtaxing of the track capacity of the eastbound receiving yard by trains of cars to be classified westward; the overburdening of the eastbound hump and classification yard; and, of major consideration, the congestion and conflicting movements that prevailed between the classification yard and the eastbound departure yard, where the make up and departure of westbound trains frequently blocked the movement of eastbound trains out of the eastbound classification yard. Another disadvantage in the existing facilities lay in the cross movement, just north of the eastbound classification yard, of trains passing from the westbound receiving yard to the eastbound receiving yard, and classified trains for the west, pulling out of the eastbound departure yard. Still another disadvantage in the existing arrangement was the lack of long classification and departure tracks for trains of empty coal cars being returned to the coal fields in Southern Illinois. Tracks holding up to 150 cars each are desirable for these movements, and, as will be pointed out later, were provided in the facilities built recently.

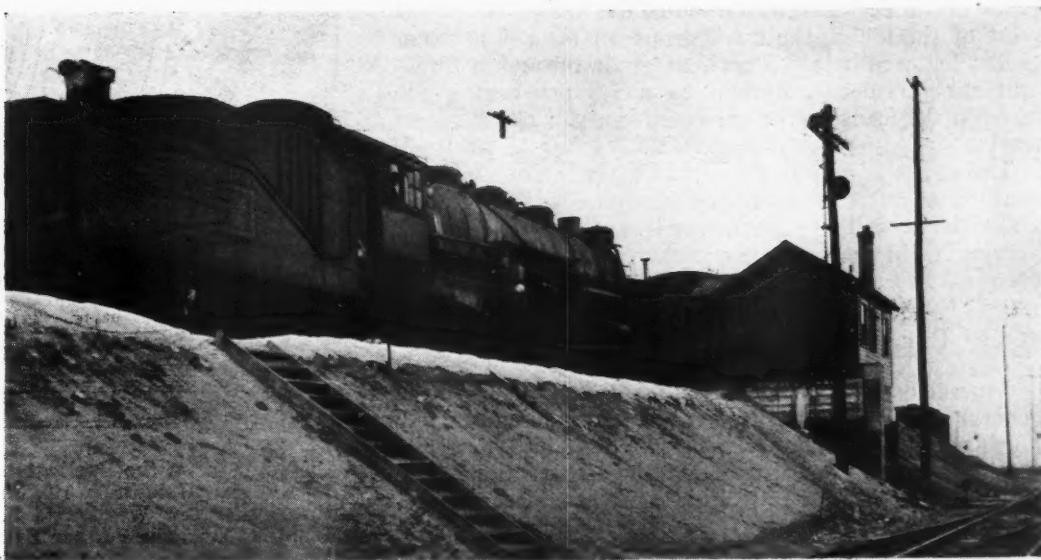
It was to overcome these difficulties that the road proposed early in 1942 the immediate construction of westbound classification facilities, independent of and more or less duplicating the existing eastbound facilities. Approved by the War Production Board, and with the support of other government agencies, construction of the new facilities was begun on June 15, and in the face of many difficulties, was pressed to completion by the middle of October.

The new facilities lie immediately north of the former facilities in an area available under the plan which contemplated their construction in 1932, and include a westbound receiving yard of 11 tracks, a westbound hump classification yard with 35 tracks, and a westbound departure yard with a total of 12 tracks. The tracks of the new westbound receiving yard are from 4,100 ft. to 6,000 ft. long, which, on the basis of an average car length of 46 ft., hold from 90 to 130 cars each. Through a single hump track, flanked on each side by a low-level running track, connection is had with the new westbound classification yard, the tracks of which hold from 20 to 150 cars each. As shown on the accompanying general plan of the facilities, the tracks in this yard are arranged in five groups of seven tracks each, each group employing No. 9 and No. 11 lapped switches to permit tracks of maximum capacity and to speed up classifying operations.

In the westbound departure yard with its total of 12 tracks, the tracks were grouped into three units of three, four and five tracks each. The four-track unit, with tracks holding from 123 to 135 cars, and flanked on the north side by a running track, is assigned to trains for the west over the Omaha-Denver line. The tracks in the five-track unit, each with capacity of 100 cars, are designed for the making up of trains to move over the St. Louis-Kansas City line, while the three-track unit, with tracks of 150-car capacity, and forming a part of



Looking Toward the Crest of the Hump Over the Three-Unit Car Retarder Group on the Principal Run-Off Grade Into the Classification Yard



The Last of a Long Train of Cars Is Pushed Over the Hump. Note West Running Track Skirting the Hump in the Lower Right Hand Corner

the classification yard as well as the departure yard, is used for the makeup and departure of trains of empty coal cars for movement to the coal fields in Southern Illinois.

In the new westbound yards, which have a combined trackage of approximately 55 miles of tracks, all tracks are on 13½-ft. centers, on gravel ballast, and employ 7-in. by 8-in. treated ties and second-hand rail of 85 to 100-lb. section, the heavier rail being employed primarily on the hump and in the throats to the various yard units. All of the ties are tie plated, and throughout the hump and classification yard the tracks are equipped with anti-creeper.

A significant feature of the new facilities, beyond their adequacy for the handling of present traffic, is the fact that the tracks of the classification yard are so laid out as to provide for three additional groups of tracks in the future if conditions require. In fact, grading has already been completed for two of these groups, which can be added in a minimum of time and without interference with existing facilities. It is of interest also to note that, if conditions should require, the westbound classification and departure yards can be taken out of service and operations resumed on the former basis, entirely through the eastbound classification yard. If this ever becomes necessary, through the use of the new westbound receiving yard, one of the most disadvantageous features of former operations will not be present—the delays and additional switching that were involved in the former inadequate receiving yard.

New Method of Operation

Under the revised operation adopted when the new facilities were put into service, the former facilities reverted back to the purpose for which they were designed originally—the classification of eastbound cars, all westbound classification work being transferred to the new facilities. As formerly, trains from the Omaha-Denver line and the Kansas City-St. Louis-Coal Fields line enter the eastbound receiving yard and are classified generally for movements east, north or south. Trains from the east, the Twin Cities line, and from the Peoria and Fulton County Coal Fields line, now move directly into the new westbound receiving yard, since the preponderance of the cars from these lines are for westward movement. Isolated cars from any of these lines for eastbound movement are grouped in the westbound

classification yard, and are subsequently shunted to the eastbound facilities.

One important exception to this general rule of handling cars from the Peoria-Fulton County Coal Fields line through the westbound facilities is provided in the case of solid trains of coal cars billed eastward. To avoid the necessity of handling such trains through the westbound facilities, a new lead was constructed from the Peoria line, around the south side of the entire yard layout, and connecting directly with the east end of the eastbound receiving yard. This feature, in itself, adds materially to the improved operating efficiency of the revised and enlarged layout.

What is being accomplished through the new facilities in improved operation and in greater efficiency in the utilization of cars and locomotives is seen in the present avoidance of car delays at Galesburg, which careful checks disclosed amounted to 26,500 car days in October, 1941, and 19,100 car days in January, 1942, in addition to related delays at other points on the system amounting to approximately 3,400 car days in October, 1941, and about 4,000 car days in January, 1942.

Grades

Grades throughout the new westbound facilities were predicated upon the proper height of hump to insure the most effective classification of cars under the conditions prevailing, not overlooking in the hump grades themselves the widely varying lengths of classification tracks, the proportion of loads and empties to be classified, the prevailing winds, the importance of rapid separation of the cars into the various track groupings, and the desirability of reducing to a minimum the wear and tear on the retarder units in securing the proper car speeds. In the light of all of these factors, the height of the hump was established at Elev. 804.07, or 21 ft. 3 in. above the lowest point in the 150-car classification tracks for empty coal cars, which is the lowest point in the classification yard. The effectiveness and necessity of this height of hump is seen in the fact that during the severe cold and windy weather that has prevailed much of the time since the yard was put in service, the majority of cars have been humped necessarily with little or no retardation in the car retarders.

Trains entering the receiving yard rise on a grade of 1 per cent through a height of 8 ft. to the general level of this yard, and then rise through another 11 ft., on a

grade of 1.5 per cent, to the top of the hump. Over the crest of the hump, the track drops off on a 4 per cent grade, followed by a 3.5 per cent grade through a three-unit car retarder, and then by a 1.5 per cent grade through the leads to the various groups of classification tracks.

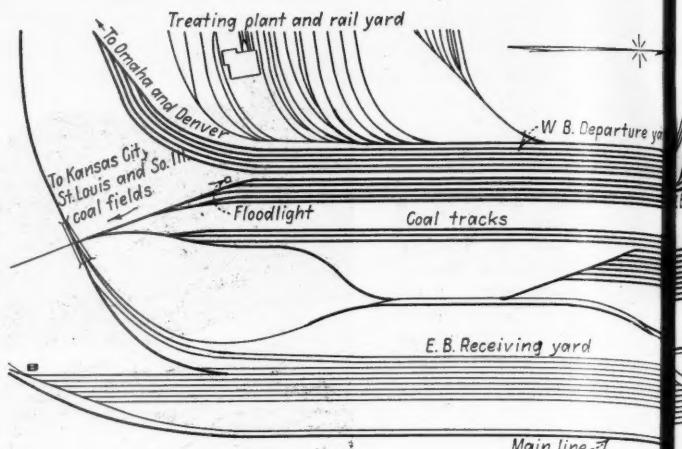
Through the classification tracks, the grades vary in nearly every track. In each case, however, the grades, under the prevailing adverse winds, are non-accelerating, and reverse upward slightly at the ends of the tracks to bring cars to a stop.

Car Retarders and Power Switches

General operations at the yard are directed from the general yard office, a two-story brick building directly north of the new hump, which was built in 1932 at its specific location in anticipation of the construction of the westbound classification facilities now provided. Immediate classifying operations are centered in a hump office directly at the crest of the hump, a one-story frame structure, which provides a hump yardmaster's office and a small room for the use of the train conductors directing car cutting operations.

To increase the classifying capacity of the new yard facilities, they are equipped with car retarders, signals, power-operated switches and several types of communication systems, including loudspeakers, a whistle, teletype printers and one-way voice communication between the hump office and the cabs of hump engines. The car retarders are of the U. S. & S. electro-pneumatic type, Model 31-A, the installation including a total of 17 units in groups of 1 to 3 units each, each unit containing 12 cylinders, 6 on a side. The specific layout of the retarder units, down the hump and in the leads of the various track groupings, to give consideration to all of the factors entering into the effective and careful handling of cars, is shown in another of the accompanying plans.

Further affecting the efficiency of operations in the classification yard, all switches at the head end of this yard are power operated, employing U. S. & S. direct-



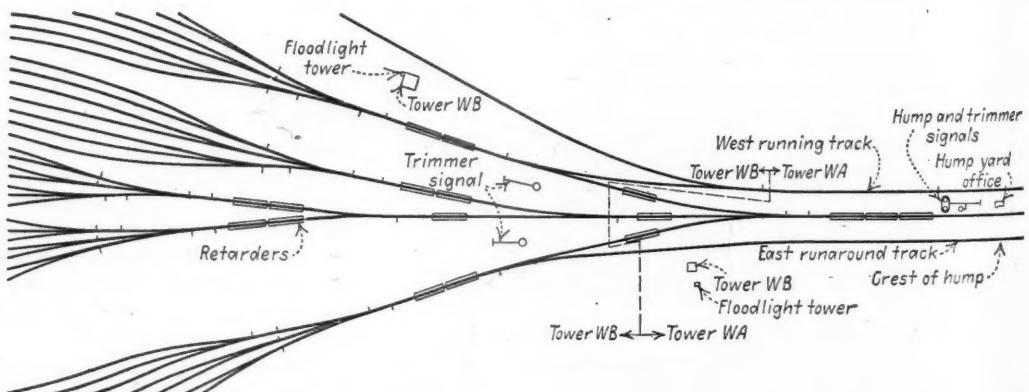
General Plan of the Burlington's Freight Classification Facilities at Galesburg, Ill., Showing Above, in Heavy Lines, the New Westbound Facilities, and Below, in Lighter Lines, the Former Eastbound Facilities Which Were Used for Both Eastbound and Westbound Classification

acting switch machines, except in the case of one cross-over between leads on the west side of the yard, where two U. S. & S. Model A-1 switch and lock movements are employed.

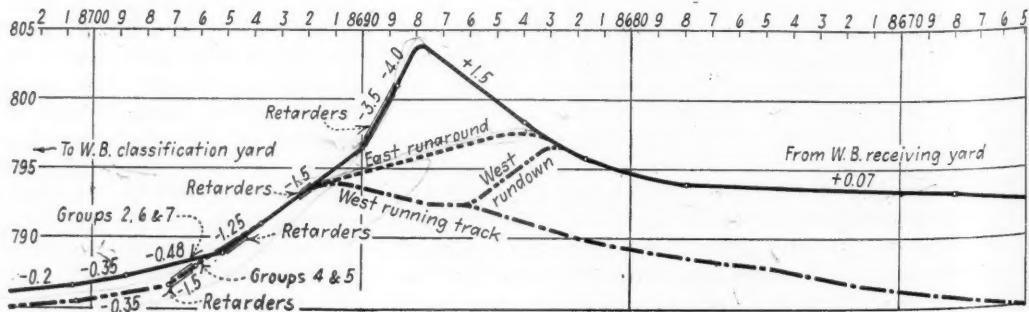
Control of the retarders and power switches is centered in two towers—WA and WB. Tower WA, directly opposite the throat of the yard on the south side, normally controls the units on the hump and main leads, and Tower WB, approximately 325 ft. to the west, and on the north side of the yard, normally controls all of the remaining units. Both towers are equipped with Style K control machines, a special feature in this regard being that Tower WB, in addition to housing a machine for its normal control operations, is equipped with a duplicate of the machine in Tower WA, so that, if circumstances should make it advisable temporarily or over a prolonged period in the future, all retarder and switch control can be centered in the one tower.

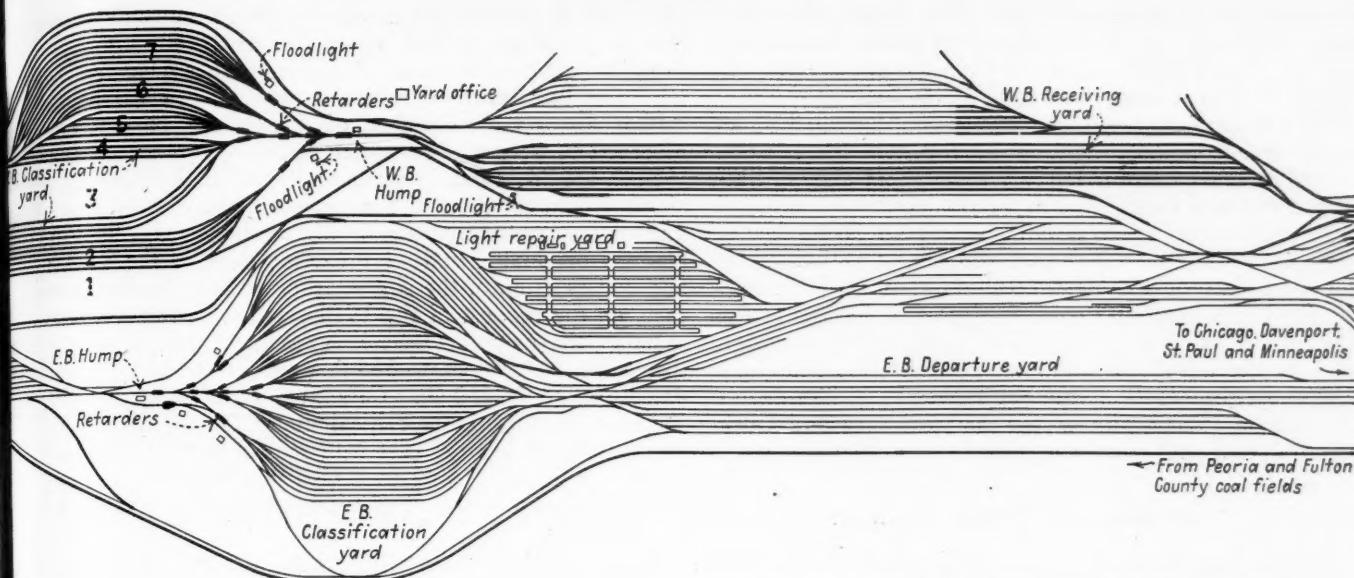
The fixed signals governing the car classification work

Hump, Signal, Car Retarder and Control Tower Layout of the New Westbound Facilities



Profile of the Westbound Hump and Running Tracks





include a two-unit five-indication, color-light type hump signal, mounted high on a mast directly above the hump office, and trimmer signals both on the hump and out in the throat of the classification yard. The trimmer signal on the hump is mounted on the same mast as the hump signal, but at a lower level. In the yard, approximately 460 ft. from the hump trimmer signal, there are two trimmer repeat signals, each on separate masts, and directly opposite each other, where they can be observed readily by trimmer engines working in the head end of the yard. All of the trimmer signals are of the two-indication, color-light type.

Communication Systems

Further control of the trimmer operations, to give enginemen immediate warning of changed conditions, is by means of an air whistle at and controlled from Tower WB. Through a blast code, this whistle not only gives instructions to trimmer engines, but is also employed to call the tie-down, or skate, man at the far end of the yard, and the signal maintainer.

Another type of communication system installed at Galesburg, and one of the latest in yard communication systems, is direct voice communication between the hump office and the cabs of hump and trimmer engines. This system, which is known as the Union yard communication system, employs a circuit including the rails and a line wire in close proximity to the track throughout the range of its effectiveness. As installed, the system provides for direct, one-way communication between the hump yardmaster and the enginemen of the locomotives equipped, but it can be arranged for two-way communication, as was the original plan of the Burlington for the yard until priority restrictions on the added equipment necessary made this impossible.

Still other communication systems provided at the new yard facilities include a loudspeaker system for direct communication between the hump yardmaster, the hump conductors, the control towers, the westbound departing yard office and the Seminary Street tower of the road just east of the yard limits; a telephone system involving a series of call boxes at the head end of the classification yard and a single call box near the outbound end of this yard, by means of which switchmen and the skate man can converse with the hump yardmaster, or vice versa; and a complete teletype printer

system for the distribution and printing of switching and "consist" lists.

Through the teletype system provided, which centers in the general yardmaster's office and is an extension of the former system employed when all classification work was done in the eastbound yard, the yard office receives teletyped consist lists for all trains out of Morton Park, Ill., and Eola, yard points on the Chicago line, in advance of the arrival of trains for classification; receives similar lists covering trains out of Savanna, Ill., on the line from the Twin Cities; disseminates switching lists to the hump yardmaster's office and to the two control towers in the classification yard; and forwards to points west and south advance consist lists of trains leaving Galesburg for these points.

Still another means of communication planned for the new westbound facilities at Galesburg is a pneumatic tube system, extending the system already serving the eastbound facilities, whereby waybills can be transmitted rapidly between the head end of the westbound receiving yard, the general yard office and the outbound end of the westbound departure yard. Only the inavailability of the tubing required for this system delays its installation.

Snow Removal Equipment and Floodlights

To further speed up and insure the continuity of operations at the new yards, all of the switches are equipped with snow-melting or snow-blowing devices, and the various yard units are equipped with floodlights. Snow-blowing equipment is provided for clearing snow from all of the power-operated switches at the head end of the classification yard and for all those hand-throw switches at the west end of the receiving yard, near the hump. This equipment at each switch consists of a 20-ft. length of hose, fitted with a 3-ft. length of $\frac{1}{4}$ -in. pipe as a nozzle, air being supplied from the same air lines that supply air for the operation of the car retarders and the power switches. For those switches remote from essential air lines, snow melters are employed. These are of the oil-burning, pot type, with from eight to ten units at each switch.

Night illumination of the yard is accomplished by a total of five steel floodlight towers. One of these towers, 110 ft. high, is located at Tower WB, and has a total of sixteen 1,500-watt projectors. Eight of its projectors are at the 55-ft. level for illuminating the area in the immediate vicinity of the car retarders and track

switches operated from Tower WB, while the other eight projectors are at the top of the tower and illuminate the tracks further down the classification yard. A second 110-ft. tower, with ten 1,500-watt projectors, illuminates the west end of the classification yard so as to produce silhouette lighting of the cars there when viewed by the operator in WB tower, and also to illuminate the east end of the departure yard.

In addition to these larger towers, an 80-ft. tower, equipped with four 1,500-watt projectors, is located at the west end of the departure yard; a 60-ft. tower, equipped with one 1,500-watt projector, is located at the west end of the receiving yard, to light the approach track to the hump; and another 60-ft. tower, with four 1,500-watt projectors, located at Tower WA, illuminates the area in the vicinity of the car retarders and track switches operated from that tower.

Grading and Track Work

Grading for the yard project required the handling of approximately 320,000 cu. yd. of earth and sand, this material being secured from adjacent borrow pits. In general, fills were brought up with earth to within about two feet of grade, and were then topped off with sand to form a substantial, readily-draining sub-ballast. On this, all tracks were ballasted with a good grade of washed gravel, with a minimum of eight inches beneath the track ties generally, and 12 in. or more beneath all switches and car retarder units.

All of the earth and sand handling operations were carried out with modern grading equipment, including four 10 to 12-*yd.* LeTourneau carryall scrapers, six 12-*yd.* Euclid trucks, one 2-*yd.* Marion shovel, two bulldozers, and one road grader.

The track work involved the removal of approximately 25 miles of old tracks, the construction of approximately 37 miles of new tracks, the lining over and raising of 8.38 miles of existing tracks and the connecting up for use of 4.7 miles of existing tracks. It also included the removal of 113 turnouts and 1 crossing, and the installation of 170 turnouts and two double-slip switches.

Recognized as a project of outstanding merit in the interest of greater railway efficiency, and especially in its effect of expediting essential war-time train movements and overcoming serious car and locomotive delays, the Burlington had little difficulty in securing approval of the Galesburg work, in principle, by the War Production Board. At the same time, in the light of the demands for materials by the military and war production industries, adequate priority ratings for the acquisition of the necessary materials to proceed with the work were obtained only after the most careful analysis of all material requirements by the WPB and the Army—analysis that resulted in demands for the modification of many details of the plans to minimize the quantities of critical materials involved.

Material Requirements Reduced

Among the modifications called for was the reduction of 23 tons in the amount of steel specified for floodlight towers. To offset this cut, the railroad substituted steel on hand from dismantled signal bridges. A reduction of four tons of new steel rods for signal installations, and several tons of rods for concrete reinforcement was offset by the use of rods taken from dismantled freight cars. To minimize the demand for cast iron water pipe for a necessary water line change, the original request

for 2,500 ft. of cast iron pipe was cut to approximately 500 ft. by taking up and reusing about 2,000 ft. of pipe from an abandoned line. In still further changes to minimize the drain on critical materials, original plans calling for a large number of manganese frogs were modified to accept open-hearth frogs.

Such modifications in plans and specifications brought about the installation of the one-way Union yard communication system, instead of the two-way system planned originally, and were carried even to the design and construction of the car retarder units. In the latter case, on the request of the WPB, and with the co-operation of the manufacturer, brass requirements were reduced from 14,940 lb. to 544 lb. and chrome-nickel from 41,650 lb. to 13,250 lb. Offsetting these reductions in the amounts of highly critical materials, approval was secured increasing the cast iron requirements in the retarders from 62,221 lb. to 80,787 lb., and the requirements for open-hearth steel were raised from 24,822 lb. to 50,042 lb.

Even with the final approval of the modified list of materials for the project and favorable priority ratings covering the specific materials allowed, many delays were encountered in securing the materials when needed, and in certain cases the railroad found it necessary to petition the WPB for still higher priority ratings. A striking illustration of delays encountered in the receipt of materials and of the inconveniences and added work that was occasioned is the delay that was involved in the receipt of the Parkway cable allotted to the job, a delay that required the construction forces to borrow from the telegraph department of the road and to lay above ground temporarily approximately 130,000 lineal ft. of paired wire for switch, signal and retarder operation in order to prevent delay in putting the yard in service. Other serious delays were those involved in the receipt of the equipment necessary for the voice communication system with hump engines, which held up the installation of this system until late in January, nearly 3½ months after the yard was put in service, and the delay in receiving the necessary tubing for the pneumatic tube conveyor system planned, a delay which still continues, holding up the completion of this essential element of the yard facilities.

Labor a Problem

Along with the problems presented in obtaining materials, equally serious problems were encountered throughout the work in securing and holding an adequate force of labor. From a planned track construction force of approximately 300 men, for example, to meet anticipated schedules, the number of men available varied widely, ranging from 146 to 258 on different days in September, and from 164 to 273 on the different days in October. The loss of men was a daily occurrence, reaching as many as 50 in one day during the height of the work.

In spite of all of these difficulties, through close co-operation between the railroad and the contractor, the energy and ingenuity of officers and men, and the flexibility built into plans and working schedules, a remarkable record of construction performance was achieved, both in individual operations and in the work as a whole—and with a minimum of overtime or night work. That this is true is seen in the fact that, started on June 15, the new facilities, involving a total expenditure of approximately \$1,100,000, were put in operation on October 15.

The facilities at Galesburg were planned and carried out under the general direction of F. T. Darrow, chief

engineer of the Burlington until his retirement on January 1, and under the immediate direction of R. W. Willis, principal assistant engineer, assisted by W. F. Zane, signal engineer, on signal matters. Actual construction operations were carried out under the immediate supervision of E. J. Brown, at the time assistant division superintendent, and now engineer of track of the road, and B. Laubenfels, project engineer. All track work was carried out by company forces, and all signal and communication work was handled by the signal forces of the road. The general contractor handling all other phases of the work was A. Guthrie & Co., St. Paul, Minn.

Katy's Report Appears In Pictures and Colors

THE Missouri-Kansas-Texas has issued its preliminary 1942 annual report to stockholders in strikingly graphic and pictorial form—befitting the much more encouraging information it has, this year, to reveal to its owners. Heretofore, Katy's preliminary report has been a 6-page, 8-in. by 10½-in. summary—supremely laconic. This year's preliminary report consists of 28 pages, 9 in. by 12 in., plus a 17 in. by 25 in. folded chart. Gloss paper is used, with plenty of illustrations and charts—many in color.

Revenues from operation—\$58,626,219, almost 68 per cent above those of 1941—were the largest in the history of the present company but average freight rates were lower, being 1.01 cents per ton-mile, compared to 1.08 cents in 1941 and 1.10 cents average for the preceding decade. Operating expenses for the year were \$39,990,824—an increase of 55 per cent. Income of \$10,866,382 was available for fixed charges (which totaled \$4,985,836), leaving net income at \$5,880,546.

Income available for charges, and net income, were the largest since 1930—when these totals were, respectively, \$11,974,459 and \$7,082,547. Much lower taxes in earlier years of favorable traffic volume made it easier, then, to carry operating income to net.

Buying in Its Bonds.—The company proceeded thrifitly with its increased income by making substantial purchases of its bonds in the open market. During 1942 and until February 5 of this year, the company purchased \$8,361,000 of its bonds at a cash outlay of \$3,054,122—bringing a yield on the investment of more than 12½ per cent, besides strengthening the company's financial structure. Fixed charges have been reduced more than 13 per cent by this process. Bond purchases have recently been suspended—temporarily at least—because price advances in the market no longer make them so attractive. The road did not reduce its R. F. C. indebtedness last year, because the use of its funds to purchase publicly-held securities was financially more thrifitly.

Traffic Density Chart in Color.—The graphic presentations in this Katy booklet appear in color, surprised on half-tone illustrations, which picture the road's territory, its operations and its personnel. Some suggestion of how this is done is given in the accompanying illustration, much reduced in size. In the original, the traffic density diagram appears in two colors (blue at the middle, showing 1941's traffic density, and yellow at either side of the blue, indicating 1942's increase over 1941). One would have to do a lot of searching to find another instance anywhere of clearer presentation, line

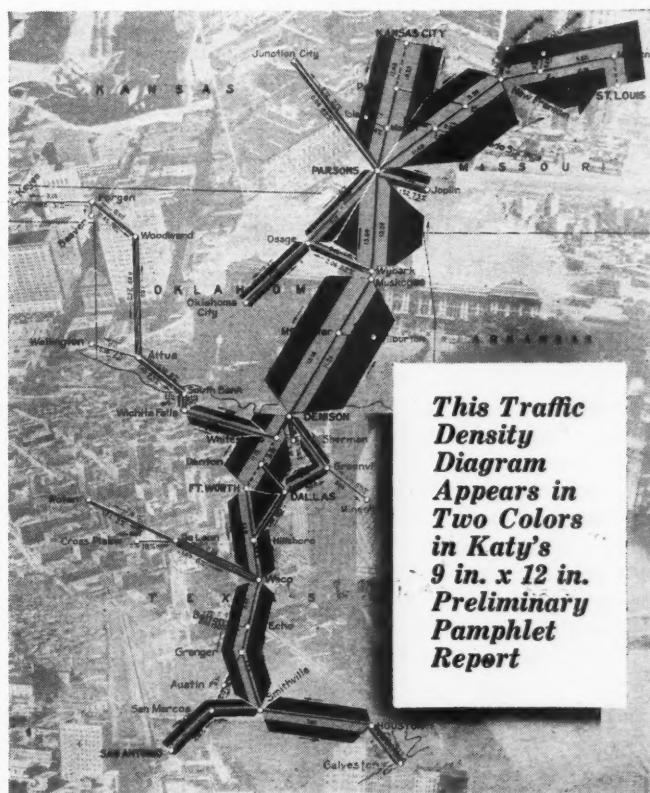
by line, of exactly how much business each piece of a railroad is handling.

Another noteworthy chart is the large 17 in. by 25 in. one folded into the rear of the report, which outlines the whole railroad in black, and indicates, in red, the progress of the comprehensive roadway improvement program—including new rail, built-up rail-ends, bank widening, ballasting, bridge and building painting, etc. In explaining this report to the press, President M. S. Sloan said: "The more this chart is in the red, the more the Katy is in the black."

Improvement Program.—In the text of the report, progress of the company's improvement program is recorded in detail: 46 miles of new 90-lb. rail in 1942 (with 200 additional miles of 112-lb. planned for 1943); more than 1¼ million ties in 1942 and 1½ million scheduled for this year; more reballasting done in 1942 than in any one of the past 25 years; extensive bank widening; building replacements; additional industry tracks. Bad order locomotives have been reduced to 6.8 per cent of total—the minimum which is required for efficient use of the company's shop facilities. Freight cars in bad order have declined to a total of 50, or 0.7 per cent of the road's ownership. Box cars are now being painted yellow—a color which is deemed safer than red in discouraging night-driven automobiles from crashing into freight trains at grade crossings. The new paint is also reported to be more durable, and is capable of effective renovation, by washing, after a year's service.

Important industrial development in Katy territory during the past year is revealed in some detail in the text. It is evident that many of the industries growing up in this area as a result of the war program are of a kind likely to continue in production after hostilities cease.

The front cover of this novel report displays in color a semaphore block-signal, with both position and light, quite appropriately, giving the "proceed" indication.



War Without Adequate Railroads?*

Continued disregard of roads as Number One war activity will reduce the science of logistics to a chaotic muddle

By F. K. Mitchell

Assistant General Superintendent of Motive Power, New York Central

OUR military leaders have long realized that victorious operations can only be achieved when they are able to have that which is needed in the necessary quantities where and exactly when it is needed. They have recognized the achievement of that end as a science. They have called that science "logistics."

Our transportation leaders have likewise long realized that successful railroad operation requires exactly the same fundamental elements. They have not recognized it as a science, but have unconsciously developed it into one. If they called it anything, it was "good railroading."

During peace time the railroads' logistics problem is one unto themselves. At the declaration of war this problem suddenly presents to them an additional phase, which is superimposed on the first and paramount to it. They immediately become one of the most important factors in the broad military logistics problem.

No consideration of this subject can well neglect either of the above phases, for the success of one is too closely involved in the success of the other. There are those in responsible positions in this country today who still think otherwise, or wilfully choose to ignore the truth, but, thank God, they are in the minority. There were those in Germany who failed to realize this dual and inseparable relation. Thank God also that they were in the majority, for their shortsightedness has been our gain.

The railroads normally need varying quantities of almost every known raw product, manufactured article, food, clothing, supply, and personnel. As always, in war time, the military forces had need for exactly the same things as did the railroads. Therein lies the complication which makes the procurement of "that which is needed" by the railroads one of the most gigantic undertakings yet faced by them.

Purchases Rise—but Not Proportionately

While the revenue ton-miles in 1942 went up 68.8 per cent over 1940 and the revenue passenger-miles went up 123.1 per cent during the same period, the purchases of materials and supplies went up only 40.3 per cent. In October, 1942, the actual ownership of locomotives was three per cent less than in October, 1939. During that same period we had only increased our freight-car ownership 5.6 per cent and the number of our passenger-carrying cars (exclusive of dining, lounge, mail, baggage and express) had decreased 1.6 per cent. It is quite obvious, then, that our actual procurement of materials and supplies did not increase in proportion to our traffic increase. Shortly after the outbreak of war we estimated that by October, 1942, we should have 974 new locomotives and 113,594 new freight cars. We actually were allowed to install 783 new locomotives, an

increase of only 4.8 per cent, and 80,874 new freight cars, an increase of only 1.9 per cent. In this instance again our procurement in nowise paralleled our increased traffic demands.

There was no expectancy that we would get what we actually felt was needed. It was generally felt that the problem resolved itself into finding a way to do the job with that portion of our estimated needs which the military requirements would leave available to us. The Association of American Railroads began an analysis of the situation with the assistance of other agencies and the railroad officers generally. These studies pointed definitely to certain programs which involved the augmentation of improved procurement methods with substitution, conversion, reclamation, and intensified utilization.

Substitutions—Some Permanent; Some Bad

Improved methods of material and supply procurement was primarily a problem handled by the purchases and stores departments. Within their own departments they set up new agencies for the purpose of maintaining closer contact with the needs of other departments and with supplier and regulatory bodies. These agencies have functioned well. Their job has been no easy one. Sometimes the difficulties encountered have been many and the results disappointing both to themselves and their associates. About the time they had relearned the alphabet and its new letter combinations and knew a priority from a directive, a new material procurement plan was sprung on them. Their chins are still up, however, discouraged though they must be, and with anything like an even break they will not fail where success is at all possible.

Substitution has been the problem of every railroad man. Surprising results have come through efforts to this end. As might be expected, some attempted substitutions have not been a success, many will fill the immediate needs, and some have proved so successful that the use of the substitute is here to stay. The experimentation and planning for these substitutions has, of necessity, been hurried and, therefore, not too thorough. The results actually achieved, though beyond expectation primarily because of good engineering judgment and sound use of past experience, will require careful review and adjustment after the emergency is over.

Typical of substitutions not found successful are the use of hot-drawn for cold-drawn tubing in the manufacture of bushings in spring and brake-rigging parts; malleable iron for bronze in certain gate- and globe-valve parts; iron for copper pipe on high-pressure steam lines in locomotive cabs; gun iron for bronze rod bushings on high-speed locomotives, and plain for coated welding rod used in welding alloy steels.

Typical of substitutions which will probably be at least

* Abstract of a paper presented before the New England Railroad Club on February 9, 1943.

fairly satisfactory for the duration of the war are enameled or painted carbon-steel parts for chromium or nickel-steel parts used in the trimming of passenger cars; carbon steel for alloy steel in the manufacture of locomotive parts, such as rods, motion work and boilers, and car parts such as sheets; friction for roller bearings on locomotives and cars; wood instead of steel for the floors of gondola cars; gun iron for aluminum or bronze cross-head shoes, and perhaps for rod bushings on switching power; silver for zinc solder; linoleum for carpet floor coverings; spring cushions for foam-rubber cushions; gray iron for bronze shoes and wedges, and female for male employees on many lighter types of work.

Notable among the substitutions which will probably be even more satisfactory than the old style materials are Insulmat for wood in cab linings; Satco metal for bronze hub liners on locomotive engine truck, trailer and driving wheels in some classes of service, as well as for lining of journal bearings; malleable for brass washout and arch-tube plugs; steel for bronze in the manufacture of bells, and plastics for critical metals in many parts.

Conversion of plants and equipment has gone on apace. Power plants and locomotives have been converted from oil to coal burners, Pullman chair, observation and lounge cars, mail and baggage cars; yes, even box cars have been converted to coaches. Box cars have been converted to cabooses; box cars and cement container cars have been converted to oil-carrying cars; locomotive shops have been converted to handle war work, such as the manufacture of engines for Liberty ships, tank parts, armored car parts, etc., and the labor agreements have been revised or converted to meet the emergency conditions.

Reclamation as a means of reducing the consumption of critical materials has been particularly productive. In the general picture the most spectacular results have been evident in the scrap drive conducted on all railroads as a part of the National Scrap Campaign. As indicative of the results of this drive Class I railroads shipped to dealers and consumers during 1942 nearly 4.5 million net tons, or approximately a million more net tons of scrap than in 1940. Less spectacular, but perhaps of more permanency in the effect on the general situation, is the introduction of new reclamation processes. For example, building up driving- and trailer-wheel centers by the Unionmelt process when below service limits; metal spray reclamation of crank shafts and many other parts; development of welding processes hitherto untried, such as the welding of spring steel for driving, engine-truck, trailer, tender and car semi-elliptical springs, and the tipping of cutting tools where the former practice was to make the entire tool, shank and all, of high-speed steel. The last-mentioned process is noteworthy for its results in that it not only produces just as satisfactory a cutting tool, but makes possible the using of every small piece of tool steel formerly scrapped. One large railroad, through the institution of this process and the careful hoarding of such tool steel as was on hand has brought about a situation which will not make necessary the purchase of a pound of tool steel for the duration of the war, even though that be for two years yet. The previously referred to reclamation processes, and many others, have resulted in making tons of critical metals and materials, which would otherwise have been used by the railroads, available for the production of war materials.

While on the subject of reclamation, I might say in passing that the railroads, through recalling retired employees to service, lowering physical requirements, and raising the upper age limits for hiring, job instruction training, intensifying safety activity, improving sanitary

and working conditions, have reclaimed many manhours which have made a corresponding number of men available to the military services.

Increased Utilization a Great Accomplishment

Our efforts toward greater utilization of such motive power, cars and equipment as we have available to us have produced results never paralleled in history. As stated before, our traffic has gone up far out of proportion to our increase in ownership of such equipment; likewise our manpower has in nowise increased in proportion to our needs. Under those circumstances greater utilization was imperative. Had it not been accomplished, the traffic could not have been handled. The job was planned, a goal was set, and the most important results are set forth in the table.

A Record Equipment Utilization

| | 1940* | 1942* | Per cent improvement |
|---|--------|--------|----------------------|
| Per cent of active freight locomotives to total (October) | 70.4 | 87.8 | 24.8 |
| Average freight locomotive-miles per month, (total locomotives) (October) | 2,249 | 3,198 | 41.9 |
| Miles per day per active freight locomotive | 107.5 | 122.5 | 13.9 |
| Miles per day per active passenger locomotive | 190.8 | 204.5 | 7.2 |
| Per cent of unserviceable freight cars | 5 | 3 | 40.0 |
| Freight car-miles per active car per day | 42.2 | 50.6 | 19.9 |
| Average freight-car load, net tons per car | 27.6 | 31.5 | 14.1 |
| Average freight-train load, net tons per train | 849 | 1,030 | 21.3 |
| Net ton-miles per train hour | 14,028 | 16,216 | 15.6 |
| Passenger occupancy per train | 60.7 | 115 | 72.0 |

* Figures for full year 1940 and first ten months of 1942, except as indicated.

If anyone has the idea that these things were accomplished without heartbreaks, sweat and, perhaps, tears by every class of railroad employees, his conception of the task is dwarfed by ignorance or indifference. Perhaps the most appreciative groups outside the railroad circles, are the shippers (who by their cooperation had made many of these things possible), the suppliers, and the military authorities. The loyalty, devotion to duty, and quiet patriotism which has helped make the solution of the railroads' own logistics problem thus far possible is a thing that you and I who are so close to it at all times can even now hardly comprehend.

Military Logistics and the Railroads in 1943

So much for the first phase of this discussion of logistics. Let us now consider the second or military phase which is superimposed on the first by the present war; that is, the railroads' vital function in the transportation side of the military logistics problem.

There are now in our military forces some five and one-half million men. We are told that this figure is to be increased to at least seven million. Everyone of these men must be hauled at least five times before he goes overseas. From the time of his induction into the service until his discharge every pound of food he eats, clothing he wears, equipment and tools he uses, his weapons, ammunition, medical and surgical supplies, both in the stage of raw materials and completed articles, must be transported largely by rail.

It is estimated that in 1942 troop movements and men traveling on military or naval leave resulted in the handling by American railroads of nearly ten million military men in organized groups of fifty or more, also that counting all individual and organized group movements, 15.7 billion passenger miles were produced. Assuming that this movement will increase in proportion to the size of our armed forces, when the seven million figure is

reached, we can expect to have to haul 12,700,000 men in organized groups annually and produce for all military and naval travel 19.9 billion passenger-miles annually. In 1942, 15 per cent of all railroad coaches and 40 per cent of all Pullman cars were used continuously for group movement of troops. Since practically no coaches or Pullman cars are being built, unless some adequate relief along these lines is afforded, about one-quarter of all available coaches and half the available Pullman cars will be continually in use by our armed forces when the seven million figure is reached.

The movement of one so-called "triangular" infantry division requires some 65 trains and 1,350 cars. The movement of one armored division requires 75 trains, varying from 28 to 45 cars each. During some months in 1942 as high as 3,000 special trains were moved. When the military personnel reaches seven million men, this special movement may well be expected to reach as high as 3,800 trains in a single month. From the above some idea of the enormity of the job which faces the railroads in moving troops can be obtained.

Even more enormous is the job which may be expected to fall on the roads, due to the increased demand for handling military supplies and equipment. During 1942, they handled 630 billion ton-miles of freight as against 475 billion for 1941. Not all of this increase was due to military requirements, but it is probable that most of it was. On that basis, approximately 155 billion military ton-miles were produced. Assuming that this load will increase in direct proportion to the increase in men in our military forces, it may be concluded that when their number reaches seven million we will have a military freight load of 195 billion ton-miles annually, 40 billion over the present load.

Abstractly considering these facts, certain probable equipment requirements can be forecast. In 1942, approximately 7,000 passenger locomotives produced 50 billion passenger-miles, or 7.2 million passenger-miles

Equipment Requirements and Prospects In 1943

| Type of Equipment | Estimated requirements | Authorized | Probable needs above the present authorized |
|--------------------|------------------------|------------|---|
| <i>Locomotives</i> | | | |
| Freight | 1,399 | 446* | 953 |
| Passenger | 583 | None | 583 |
| Switch | 606 | 306 | 300 |
| <i>Cars</i> | | | |
| Passenger | 2,266 | None | 2,266 |
| Freight | 105,650 | 20,000 | 85,650 |

* Includes 123 5,400-hp. Diesel locomotives, only 36 of which will probably be built in 1943.

each. An increase of 4.2 billion passenger-miles due to increased military travel would then require 583 additional passenger locomotives. In 1942, 22,000 freight locomotives produced 630 billion ton-miles, or 28.6 million ton-miles each. An increase of 40 billion ton-miles due to increased military requirements would require 1,399 additional freight locomotives. In 1942, 27,756 passenger cars produced 50 billion passenger-miles or 1.8 million passenger-miles each. On this basis, 2,266 additional passenger cars would be needed. In 1942, 1,690,570 freight cars produced 630 billion ton-miles, 378,600 ton-miles each. On this basis, 105,650 additional freight cars would be needed. Assuming that the ratio of switch locomotives required would be the same as the present ratio of switch to freight locomotive ownership, approximately 908 added switch locomotives might be required. Readjusting this estimate on the basis of Diesel switch locomotive performance and assuming that all switch locomotives procured would be

of the Diesel-electric type, approximately 606 new locomotives might be needed.

Contrast these estimated needs with the equipment authorized thus far in 1943 (see the table).

It is recognized that many factors will no doubt influence the accuracy of the abstract requirement figures quoted. As overseas supply lines are lengthened and the number of men overseas increases, the quantities of material and supplies lost will increase and the quantities enroute will likewise increase. Greater amounts of fuel oil and naval supplies will be needed for the transportation of these things overseas. These military forces may be increased even beyond seven million, and naval forces may also increase in nearly the same proportion. These and similar, perhaps unforeseen, circumstances may make the estimates low. Reduced civilian requirements, changes in military training and tactical plans, the production of satisfactory synthetic rubber in large quantities, completion of contemplated pipe lines, and similar circumstances may make the estimates high. We must, however, plan for the future in such a way that, regardless of what happens, our equipment needs will be adequate. Only by so doing can our part of the military logistics job be met successfully.

The Handicaps of the Railroads

What are we faced with in fulfilling our obligation to get these military supplies and materials delivered to the point where needed in the quantities needed, at the time they are needed?

First—An acute manpower shortage, growing even more so. In 1940 we had on the Class I roads, 1,026,848 employees and in 1942 had increased that by 22½ per cent to 1,270,000, while the freight load went up 68.8 per cent and the passenger load went up 123.1 per cent. We have lost between 8 per cent and 10 per cent of our forces to the military services and between 22 per cent and 25 per cent to other industry in addition to our normal losses through mortality, retirement, etc. Many wise and productive schemes have been set in motion to aid in keeping our manpower up to the requirements. Yet even now there are an estimated 60,000 positions vacant. We will work out our own salvation as far as it is humanly possible, but must have the support of the selective service boards and the Manpower Commission.

Second—A continued and even more difficult job of material procurement for our own ever increasing needs. In this situation we realize the problem with which the various governmental agencies are faced, but also that while some officials of those groups are sympathetic to our necessities, others are not. They do not yet realize that we must have material when it is needed, that if we wait for a locomotive to be out of service before a directive or an emergency priority is given, and the return of that locomotive to service is delayed just one day, 78,383 tons of war materials will be just one mile farther from the place where it is needed.

Third—An actual equipment shortage that is not being corrected as rapidly as we feel circumstances demand. Here again, governmental agencies charged with the responsibility of new equipment procurement and allocation could help more if its officials were unanimous in their opinion that our needs are actually a part of, and not secondary to those of the military and naval forces. There is probably only one governmental agency or department that really has that conception of the picture.

Fourth—Deferred maintenance becoming necessary due to lack of manpower and material, plus our inability to hold equipment out of service long enough to make
(Continued on page 470)

Railroad Material Outlook in 1943*

Adequate supplies and equipment necessary
to continued functioning of carriers in
current year—Requirements reviewed

By A. L. Sorensen

Assistant to Vice-President, Association of American Railroads†

HOW long the railroads will be able to continue to function as they have during the past year, depends on the amount of materials and equipment that is allocated to them by the War Production Board. The railroads placed 60,789 new freight cars and 668 new locomotives in service during the first eleven months of 1942, and more would have been added had it not been for the demand for materials for other war purposes. They have recently been allotted for part of the current year 20,000 new freight cars and 386 new locomotives, but with continued war activity expected to result in an increase of perhaps 10 per cent in ton-miles in 1943 over 1942, it becomes quite obvious that further additions must be made if the railroads are to continue to meet the transportation demands of the country.

Not only must they have sufficient cars and locomotives to do the job but they also must have the materials and supplies to maintain the plant and equipment already in service. The railroads last year just about reached their limit in reducing the number of "bad-order" freight cars and locomotives. The number of freight cars awaiting repairs at the present time is down to about 2.6 per cent, or less than half of what was regarded as a practical minimum before the war, while the number of locomotives awaiting repairs has been reduced to 5.2 per cent. Under no circumstances must we permit the mistakes of the German railroads to be repeated in this country. Replacements must be made before we reach the critical stage and before any breakdowns occur to interfere with vital railroad service. Equipment and maintenance materials should come ahead of all other requirements, as the tonnage of new materials required to continue operation of existing facilities is substantially less than the tonnage required for additional facilities. Second on the list of requirements is motive power. Increased power provides the facilities for moving a greater number of cars within a shorter space of time. The acquisition of new replacement rail is ultra-important to the continuity of safe and efficient operation, and it is hoped we can continue to receive sufficient new replacement rail to continue to operate safely and efficiently.

What Railroads Require

It was estimated by Class I railroads that approximately 5,200,000 tons of steel, copper, copper alloys and aluminum would be required for maintenance purposes in 1943, which was reduced by the Office of Defense Transportation, because of reduction in rail and other

* From an address before the New England Railroad Club in Boston, Mass., on January 12, 1943.

† Also associate director, Division of Material and Equipment Requirements, Office of Defense Transportation.

accessories, to 4,500,000 tons. Of the latter figure, approximately 1,100,000 tons has been allocated for the first quarter of this year, and this may have to be spread over a considerably longer period than three months, as things shape up now. The railroads also asked for 80,000 new freight cars and 900 new locomotives for this year. These freight cars and locomotives would have required approximately 2,000,000 tons of steel, and if this can be made available they should be built. To what extent the railroads will get more freight cars and locomotives than those already allotted remains to be seen. Certainly it would seem to be the better part of wisdom to permit the railroads to acquire these additions and thus safeguard transportation service rather than to run the risk of serious interruptions to service during the coming year when the strain on the railroads is expected to be greater than ever.

One of the contributing factors to increased transportation is the installation of centralized traffic control, and other essential additions and betterments jobs, and in this connection ODT has been found most helpful where requirements are actually established.

Although there is nothing more important than dependable and efficient transportation in the entire war effort, the railroads have made only requests for materials where the results justify the request and have asked no special favors. Along with spokesmen for ODT and the Transportation Equipment Division of WPB, the railroads have had to fight hard for their requirements. They had to take what they could get and what they got was due in a large measure to the assistance and co-operation which they received from the AAR, ODT, and the Transportation Equipment Division of WPB. It would have been difficult to have accomplished anything without them.

The Controlled Materials Plan

The railroads have been receiving their materials under what has been known as Order P-88, but this is being replaced, effective July 1, 1943, with what will be known as the Controlled Materials Plan. That involves some added work for the railroads, but is of secondary consideration if the new scheme produces results. The purpose of this new plan is to link the control of materials with the control of schedules and is premised on the theory that no more materials will be allocated than can be produced within a specified period. If the plan is carefully administered as to production schedules and even more carefully to see that programs are equitably planned with due regard to requirements actually needed for the good of the entire war program, it should be helpful. On the other hand, if it fails to see that production is balanced with requirements, and de-

liveries of materials produced are not made to the proper place at the proper time and in the proper amount, it will not correct difficulties encountered under previous plans. It is the understanding that under this new plan, limitation orders and other orders affecting the use of critical materials will be considered in connection with the amount of materials allocated, in that the amount allocated will be that which is available after considering the limitation orders.

Where limitation and conservation orders have been issued which restricted the railroad industry unduly, we have generally been successful in having the restrictions revised. As an illustration, Order L-41 as originally issued, covering construction, placed a hardship on the railroads. However, an amendment was obtained permitting track construction without specific authorization under the \$1,000 limitation in the order. Limitation Order L-88 covering the distribution of used rail has provided the armed forces with somewhat over one million net tons of relay rail.

Order M-216 established prices to be paid for railroad cross ties. However, the prices were not sufficiently high to effect deliveries, and as a result of negotiations with the Office of Price Administration a recent amendment was issued increasing the price of cross and switch ties by zones, which we believe will stimulate deliveries.

The importance of reclaiming and repairing existing materials is nothing new to the railroads. They have been vigorously active in this work for many years. However, under the pressure of war conditions, reclamation was again fully reviewed and is being extended to save critical materials. Reclamation and repair practices today are measured by savings, which in turn are measured by the reduction of materials which it would otherwise be necessary to purchase in order to meet requirements.

The railroad purchases of materials and supplies, including fuel, rail, etc., are estimated to have amounted to \$1,300,000,000 for the year 1942, which compares to \$1,161,000,000 for the year 1941 and \$854,000,000 for the year 1940. Increased prices paid by the railroads for fuel, materials, and supplies as compared with prices paid during the year 1941, added approximately \$110,000,000 to the operating cost of 1942.

Emergency specifications are being constantly studied and issued by the various divisions of the AAR, such studies being premised primarily on the reduced use of critical materials for the duration.

Controlling Inventories

Inventory control is more active and constantly being given more consideration today than ever, although railroads have always stressed its importance. As a result of present conditions and the desire to lend every effort to the reduced production of new materials, no effort must be spared in seeing that inventories are kept down to an absolute minimum. If, under our new material control plan, railroads can be assured of definite periodic deliveries, they can go even further in bringing about a reduction in this investment. Uncertainty of time of deliveries has at times played havoc with inventories. At present the materials in the inventories are being given most careful consideration to see that they are being used in the best manner possible, even to the extent of using some materials in place of others and in distributing the materials, where possible, to other carriers, rather than to manufacture new materials. In connection with the new Controlled Materials Plan, it is extremely desirable that each railroad maintain its records in such form that it is constantly in touch with its receipts and requirements of materials.

Under the present conditions, railroads will be expected to and should, where possible, operate with relatively less material on their shelves than they would have in normal times and, in order to operate under such a situation, both the using department and the supply department will be obliged to exercise far greater effort than in normal times. With all interests pulling together I am confident that the job will be done because it has to be done.

War Without Adequate Railroads?

(Continued from page 468)

essential repairs. Every railroad man knows when that snake in the grass issues its warning hiss there is trouble ahead. We have already heard the warning. It must be killed before it can raise its head to strike.

Fifth—An apathy on the part of the general public, not conducive of forcing their political leaders to recognize that the railroads are the Number One key industry in the war effort. Perhaps we are, as much as anyone, responsible for this; we have heretofore done a poor job of selling ourselves to them. We must overcome this failure; that is your job and mine.

Where, then, do we stand now as to our ability to continue properly to perform the transportation element of the military logistics problem for which we are responsible?

The time has come when the railroads must be accepted as and accorded the action necessary to support them as the Number One key war industry. Unless that acceptance and accord are forthcoming future generations will wonder why this one was so shortsighted as to cripple the life line of transportation in a time as critical as this!

Shall We Copy Germany's Mistakes?

Of what avail to MacArthur, Montgomery and Eisenhower, Timoshenko, or Nimitz are a million men that they cannot get when and where they need them; a million tons of ore at the mines, when it is needed in tank steel; a hundred thousand tanks in Detroit when they need them to start or support an offensive; a million barrels of oil in Texas when it is needed in the holds of their ships, or ten thousand airplanes on the front line and the gasoline for them in tank cars somewhere in these United States waiting for locomotives to move them?

A wall paper hanger by the name of Schikelgruber conceived the idea, in his paste-filled mind, that such things could be prevented by employing other means than his railroads. His own railroad people plead with him to allow them to put his railroads in shape to do the job. I know that to be a fact, for when he finally was coerced into doing something about it he sent a committee over here to study our railroads and their methods preparatory to instituting a rehabilitation program. Those men spent some time on the railroad for which I was working and I drew the job of accompanying them. I still have their business cards. They would have done the job, and done it right, but by the time they were ready, war had already broken out and they were denied the materials and equipment with which to do it. Today in Germany the railroad situation is desperate. Schikelgruber is frantically appropriating the equipment from conquered countries, trying to patch it up and again restore the transportation element of his logistics problem to its normal adequate functioning through railroad transportation.

In England the situation on the railroads is none too healthy. This is not because of any shortsighted policy or delusion that their railroads were not a definite factor in the British logistics problem. Destruction of roadway, structures and equipment through bombing, in addition to the added war load, is proving more than they can handle. We are helping straighten out that situation by furnishing men, facilities and equipment. You have had it revealed to you through pictures of American built locomotives being unloaded in England.

That our boys are assisting in building, rehabilitating and operating railroads in North Africa, Australia, Alaska and behind other fronts, is no news to you now, but it does emphasize that railroads are considered of prime importance as a logistical agency by all military leaders.

As the link is to the chain, as the hub is to the wheel, as the engine is to your automobile, as the machine tool is to production, so the railroads are to military logistics. If they function adequately, logistics will continue to be a science, if not, it will deteriorate into a chaotic muddle.

Non-Op Case Opens

CHARGES that the demand for a closed shop made by the non-operating unions is not only unconstitutional, as declared by the attorney general of the United States, but is an attempt on the part of the unions to change working rules in violation of a moratorium entered into last fall when employees and railroads agreed not to change working rules for the duration, were made by J. Aronson, vice-president, law, of the New York Central and general counsel for the carriers conference committees in the carriers opening statement before the emergency board which started hearings at Chicago on March 1 on the demands of the non-operating unions for a wage increase of 20 cents an hour, a minimum wage of 70 cents an hour and a closed shop. The members of the board appointed to consider the demands of the non-operating employees are: Dr. I. L. Sharfman, chairman of the Department of Economics of the University of Michigan (chairman); Walter T. Fisher, Chicago attorney; and John A. Fitch, professor at the New York School of Social Work.

Mr. Aronson outlined the testimony the carriers would present, emphasizing various reasons why the demands of the unions should not be granted. He pointed out that because the heavy traffic the railroads are now handling is only temporary, any wage increase, likewise, would not be permanent. "When peace comes," he said, "the traffic diverted to the railroads from the Panama Canal, the Inland Waterways and tankers will be taken from the railroads as will the large amount of war materials now being handled by the railroads for the Army and Navy." To show that so-called prosperity is misleading and that much traffic is temporary, he said that box cars are being converted to three-tiered sleepers to handle the increasing movement of armed forces but that after the war passenger business will return to a low level.

Another condition which will prevent the railroads from permanently enjoying the traffic they are now handling, he said, is a growing interest in air transport which, he forecast, is being so emphasized during the war that it will offer much competition when peace comes. Still another condition which creates the false impression of prosperity, he continued, are land grant rates which swell the revenues of the railroads. Much of them will have to be returned when adjustments are made.

Mr. Aronson called attention to the absence of repairs to and maintenance of railroad facilities, stating that railroads are living on their "fat." If there were no war or absence of materials, he said, the railroads would be spending hundreds of millions of dollars each year to keep their properties in condition. He pointed out that in view of this condition a contribution by employees at this time would insure permanent employment after the war.

Railroad Wages Not "Unstabilized"

"Railroad employees," he said, "are not exempt from the Stabilization Act, executive orders and policies formulated under the act and orders, and it is wrong to assume that they should be when all other employees are governed by the Act."

Compulsory membership, he stated, has no place in the railroad industry. Two reasons advanced are not arguable and the third is not persuasive, he said. If, he continued, the unions continue their demand for a closed shop, the railroads will insist that they produce the con-



I. Leo Sharfman



Walter T. Fisher



Blackstone

John A. Fitch

stitutions of each of the brotherhoods and the composition of membership so that the board will know what the provisions of these constitutions are. The provisions of the Labor Act, he concluded, categorically prohibit compulsory membership. The attorney general has offered an opinion that compulsory membership is in violation of the Railway Labor Act. Since the demand for compulsory membership is an attempt to change working rules, he concluded, it is in violation of the moratorium entered into by the unions and the railroads last fall.

R. R. Work Not Well-Paid, Says Lawyer

Frank L. Mulholland, counsel for the 15 co-operating railway labor organizations, presented the opening statement for the employees. He contended that railway employees have lagged far behind workers in other American industries, both in actual wage rates and in the proportions of increases secured in recent years. "It is a persistent misconception," he said, "that railway employees are all highly paid, regularly employed, and enjoying working conditions more favorable than other groups of American workers."

"Employees' wage requests are for an increase of 20 cents per hour in the rates of pay of all groups represented by the 15 co-operating organizations, and for the establishment of a minimum wage rate of 70 cents per hour. The Board will also pass upon a request for the adoption and application of the principle of the union shop to all employees represented in the hearing." Although asking for the adoption of the union shop "principle," the 15 co-operating railway labor organizations have not requested the check-off method of collecting union dues, or exclusive hiring of union members, he insisted.

Under an arrangement made with the emergency board hearing the Diesel cases, the board hearing the demands of the non-operating employees convenes each morning, and the former, each afternoon, five days a week. As a result, testimony was not begun until Wednesday.

The first witness for the unions was George Cucich, research director of the Railway Employees department of the American Federation of Labor, who reviewed the history of railroad wage increases and presented exhibits tracing the development of present non-operating employee wages and comparing the increases they have received with those granted operating employees. "Since 1920," he said, "various wage increases and decreases have been made through direct collective bargaining or by the decision of different governmental tribunals. The net effect of these wage changes has been that the rates of the lower paid have risen less, generally, than the wages paid other groups. Although 60,000 workers gained by the operation of the minimum wage law, the effect of the increase on wages was very slight, only a fraction of one cent per hour gain being registered by the entire group of lower paid employees. The increase of these rates to the legal minimum of 36 cents and a subsequent general wage increase have resulted in the entire group now being paid at the 46 cent rate."

No Board for Ops Yet

As this issue went to press no emergency board had been appointed to pass on the demands of the five transportation unions for a wage increase of 30 per cent with a minimum increase of \$3 per day. Dr. William M. Leiserson, chairman of the National Railway Labor Panel, said on Wednesday that he had received no formal application in that connection; although he anticipated that it would be coming along at any time.

Diesel Demands Heard

THE demands of the Brotherhood of Locomotive Firemen and Enginemen for a fireman-helper on Diesel locomotives and a new basis for figuring pay are peace-time proposals and should not be considered during the war, according to Sydney A. Alderman, chairman of the Council committee of the carriers and general solicitor of the Southern, in the carriers' opening statement in the hearing of the demands which an emergency board began at Chicago on March 1. The emergency board hearing the Diesel cases, that of the firemen and that of the Brotherhood of Locomotive Engineers, consists of Frank A. Swacker, a New York attorney (chairman), George W. Stocking, professor of economics at the University of Texas, and John A. Lapp, labor arbitrator of Chicago.

Complications arose when the hearing was called to order on the first day, when the firemen, in protest to the consolidation of their case with that of the enginemen, failed to make an appearance. The board, acting upon a letter from Donald Richberg, counsel for the Brotherhood of Locomotive Firemen and Enginemen, denouncing the proceedings as illegal and demanding that the firemen be accorded a separate hearing, decided that the firemen's case would be heard first and independent of the enginemen's case. And that upon its completion the board would consider the demands of the enginemen. By agreement with the board hearing the demands of the non-operating employees, the Diesel board will convene each afternoon and the non-op board each morning five days a week.

The demands of the firemen, according to Mr. Richberg, who presented the opening statement for the firemen, are an attempt to remove inequities in the relationship between wages and work done. The firemen are demanding a fireman-helper on each Diesel electric unit and a new basis for figuring the pay for firemen and helpers on all classes of locomotives. Under the demands, pay for firemen on Diesel electric locomotives would be based on horsepower and pay for firemen on steam and electric locomotives would be based on the total weight of locomotives instead of on the present basis of weight on drivers for all classes of locomotives. However, existing rates of pay which are higher than those proposed would not be reduced. Existing rules which are considered by the employees to be more favorable would be retained. Existing differentials for divisions or portions thereof; or mountain or desert territory as compared with valley territory, whether expressed in the rates or in constructive mileage allowances, would be preserved. A Diesel electric agreement signed at Chicago on February 28, 1937, and made effective on March 15, 1937, and, with some exceptions, existing agreements covering rates of pay, rules and working conditions of firemen, helpers, hostlers and hostler helpers would be changed to conform to the new proposals.

Mr. Richberg, in anticipation of the carriers' argument that the demands would necessitate the hiring of additional employees at a time when help is scarce, contended that the important thing for the board to decide is the need for additional men and if the help situation cannot be solved, to recommend that the proposal for adding a fireman-helper to each unit be postponed until after the war.

Mr. Alderman charged that the demands were an attempt to secure increases in wages in addition to the 30 per cent demanded by the operating brotherhood and an effort to repudiate an agreement entered into in 1937. He contended that the railroads cannot secure enough



men under present conditions because the demands of the firemen and enginemen combined would entail the use of a large number of extra men on all Diesels with as many as nine men instead of two men on Diesel locomotives of four units. The nine would include a fireman-helper on each unit, an assistant engineer on each unit and an engineer on the first unit.

He charged that the firemen were seeking a dual basis of pay and that the carriers will show that the tractive effort of locomotives is the best basis for showing the relationship between the efficiency of locomotives and the work done by firemen. The total weight on drivers and horsepower have a relationship to speed, he said, but have no relationship to tractive effort whereas tractive effort shows a relationship to speed and output.

Communication . . .

Traffic Men Have Vital Public Relations Functions

LOUISIANA

TO THE EDITOR:

I understand that there has been some recent discussion in the executive circles of some of the carriers and at Washington regarding the propriety or necessity of continuing traffic department organizations during the term of the existing "emergency" in transportation, when it appears that most of the lines have about all of the tonnage they can handle as a result of the national war effort. It occurs to me that careful consideration might well be given the thoughts expressed in an editorial which appeared in the *Railway Age* of February 9, 1929, which is just as true today as the day it was written. The "emergency" is going to be over some of these days and the lines with trained and efficient sales

or traffic personnel who have kept up their contacts will be the ones that are least affected by the big drop when it comes, in my opinion. Experienced men are now growing scarcer, and if we allow the men we have trained to fit our particular set-up to leave us and do not replace them with the best available material, we are going to be up against it when the days of peace arrive.

The editorial you published back in 1929 which is so appropriate to this present-day question reads as follows:

"Railroad traffic officers and solicitors have one of the most difficult and important of all railroad tasks. Not only must they know all the details of their everyday work but they, more perhaps than any other one class of railroad men, form the principal source of contact with the railroads' most influential patrons. What is generally known as public opinion regarding the railroads is in large measure the reflection of the opinions, or at least the acquiescence, of these railroad patrons. To be sure, employees such as ticket agents and the trainmen probably come into contact with larger numbers of the public than do the traffic men, and their influence is important. On the other hand, such contact as these employees have with the public can serve only to build up a general disposition, favorable or unfavorable, on the part of the general public."

"With the traffic solicitor, however, the situation is different. His customer knows more about the workings of the railroads than does the average person whose direct contact consists only of a rail journey now and then, and his opinions are more positive. In the second place, the traffic solicitor generally calls upon his customer at the latter's place of business and may be called upon to discuss general matters of railroad policy and performance. It seems plain that the traffic solicitor, adequately represented by his company, needs to be almost as well-informed on railroad problems, policies and accomplishments generally as he does in the specific work of the traffic department."

"Do railroads utilize the full public relations potentialities of traffic department contacts? Do they make adequate provision for assuring that traffic solicitors are well-informed on railroad problems generally and are able effectively to combat misinformation and unreasoning opposition wherever it appears?"

TRAFFIC DEPARTMENT.

In Next Week's *Railway Age*:

The Job Which the War Has Put Up to the Santa Fe's Coast Lines and How They Are Managing to Do It

In the *Railway Age* of March 13 an illustrated article by our transportation editor will describe the task which the nation called on the Santa Fe's Coast Lines to do (double the traffic of 1929, and moving in unusual direction—with the bunching not falling where normal needs had brought facilities to accommodate it). The physical layout will be shown in a map, and operating peculiarities noted—along with improvement projects undertaken to ameliorate them. Figures on the magnitude of the increase in traffic will be given, followed by an enumeration of the expedients which have been adopted successfully to "keep them rolling."

Pictures of the 715th Railway Operating Battalion in Training at Fort Northeastern, Hattiesburg, Miss.

Two pages of excellent photographs will reveal how soldiers are learning to railroad by actual performance of railroad operations—running trains, repairing track and equipment. This instruction is being given in co-operation with the Southern. Its own Operating Battalion was trained here—and the job was so well done that the Army sought its continued co-operation in making another railway unit ready for foreign service.

Each issue of *Railway Age* plays its part in publicizing new ways in which railroad men can advance, and are advancing, the nation's war program. Each issue gives railroad men information, knowledge of which promotes their professional competence; makes them more efficient railroaders, alive to the opportunities of this most dynamic period in the whole history of transportation. For instance, look through this issue from this viewpoint (articles such as that on the Galesburg Yard, the railroad layout in North Africa, and the remarkable paper on railway logistics by F. K. Mitchell). To be an effective means whereby alert railroaders keep that way—such is one of the foremost functions which this paper seeks always to serve.

Railroads-in-War News

Truck Advertising Draws Pelley Reply

Writes A.T.A. President Rodgers about statements "not based on facts"

J. J. Pelley, president of the Association of American Railroads, has written to Ted V. Rodgers, president of American Trucking Association, a letter taking issue with statements made in A.T.A.'s recent advertisement—"This is A Motorized War." Believing, as he does, that now is the time "for the railroads and trucks to do their transportation job to the best of their ability and that it is no time for competitive bickering," Mr. Pelley was unable to understand why A.T.A. should spend its time and money "to present through newspaper advertising such inaccurate and misleading statements . . . in an obvious attempt to discredit the railroads, and especially when such statements are not based on facts."

Mr. Pelley's objection was to that phase of the A.T.A. advertisement which undertook to establish that "with one-twentieth of the railroad capacity, trucks haul one-fourth the load—in less than half the time." He submitted with his letter a memorandum which asserted that this statement "is made up of three different propositions and all of them are in error." The memorandum notes that the cost of truck service to the shipper as compared with the cost of railroad service is 4 to 1, and it disposes of the three propositions in this fashion:

"One-Twentieth the Capacity."

Motor Truck Facts, 1942 Edition, pages 38-9, contains data for 1940 showing that 600,000 for hire trucks carried an average load of 5.34 tons. If this is taken as a measure of capacity, then the capacity is 3,204,000 tons. The private trucks numbered 4,291,000 and carried an average load of 2.37 tons. If this is taken as a measure of their capacity, then the total is 10,169,670 tons. Total capacity is 13,373,670 tons.

In the same year 1940, there were 1,853,681 freight cars in service on the railroads that carried on average load of 27.6 tons. Their capacity on the basis given above was 51,000,000 tons.

The ratio of truck capacity on this basis to freight car capacity is 1 to 4.

"One-Fourth the Load."

The annual report of the I. C. C., 1942, page 7, containing figures for the latest available year shows that—

—Railroads created 481,766,000 ton miles of freight.

—Public and private trucks created 57,123,000,000 ton miles of freight, as estimated by the Public Roads Administration.

The ratio of truck ton-miles to railroad ton-miles is less than 1 to 8.

The 600,000 trucks for hire in 1940 created 26,674,000,000. The railroads created 373,253,000,000 ton-miles in the same year. The ratio of truck ton-miles for hire to railroad ton-miles is 1 to 14 or 7 per cent.

If reference in the ad is to the 250,000 trucks in intercity operation, the ratio of truck performance to railroad performance is obviously less than 7 per cent.

"One-Half the Time."

The figures contained in the newspaper ad are not accurate as to the time required by rail-

Scrap Corp. Head Raps WPB, and Is Fired

In last week's *Railway Age* was published an article, "WPB Bungling of Scrap Threatens Steel Supply," which was a report of criticisms uttered by B. C. Moise, president of War Materials, Inc., a federal corporation which was organized last year to collect "high-cost" scrap. Now Mr. Moise is discharged—his resignation having been asked for by C. W. Nichols, vice-president of Metals Reserve Company, a Reconstruction Finance Corporation subsidiary, following the publication of his critical remarks to his board of directors. In submitting his resignation to the president of Metals Reserve, Mr. Moise wrote:

"The statement to the board of directors stands unanswered in any respect from any source and that statement to the board is evidently at variance with the policy desired by Metals Reserve Company, as shown by the demand for my resignation." The resignation added another stormy chapter to WMI's seven months' career, the first president, J. M. Hopwood, having resigned within a month after its creation as a result of disputes with WPB.

road for freight delivery. There may be an occasional car, or an occasional truck, that has been delayed. The figures given do not represent in any way the normal service of the railroads.

It may be further pointed out that one important fact has been omitted. It is that for what the trucks do carry, on the basis of reports to the I. C. C. by Class I carriers, they receive an average revenue of 3,986 cents for hauling one ton of freight one mile. This is in sharp contrast with the average receipts per ton-mile by railroads of 0.945 cents. The cost of truck service to the shipper as compared with the cost of railroad service is 4 to 1.

Mr. Pelley said he would be glad to have Mr. Rodgers' comment on the foregoing, "if the figures as we have set them up are not correct." Also, he would be glad to hear from the A.T.A. president "as to the purpose you have in mind in publishing such erroneous statements."

"Both the trucks and the railroads," Mr. Pelley's letter further said, "have a big job on their hands now and both of them, so far as I know, are doing it well. It seems most unbecoming, therefore, that the trucking industry at this time should engage in an attempt to discredit railroad performance by advertising, especially when the statements made are as far from the facts as those in the current advertisement."

Manpower Shortage Is Slowing Trains

Eastman says situation grows serious, while ODT finds 48-hour week exceeded

Train movements are being slowed down by the growing manpower shortage on the railroads, Director Joseph B. Eastman of the Office of Defense Transportation said February 27 in an informal talk at a Harvard Club luncheon in Washington, D. C. While it has at times been necessary to make trains wait for crews, slower movement frequently results, he said, from decreased efficiency of new employees in loading and unloading cars, particularly where older men have been substituted for younger ones. This situation is steadily becoming more serious, he declared.

Remarking that the success with which the railroads have met current demands made upon them for wartime transportation is the result of lessons learned in World War I, Mr. Eastman mentioned possibilities for further applications of these lessons in such fields as pooling equipment and capacity loading. In the most effective utilization of trucks, buses and private automobiles, there is still much that needs to be done, he added. Repeating warnings previously uttered that "more positive restraints" on rail passenger travel might be necessary, the speaker indicated that the program of the railroads and the ODT to discourage non-essential civilian travel had yielded encouraging results so far.

Asked to comment on the effect that early completion of the Florida barge canal might have on the transportation situation, the ODT director indicated his understanding that it could not be finished soon enough to be a factor in the present emergency. On the other hand, he pointed out, to build a project of this magnitude would require manpower and materials in large volume at a time when there is great need for them elsewhere.

Mr. Eastman's discussion of the manpower shortage on the railroads came a day after the regular monthly conference of ODT officers with representatives of railroad managements and labor unions for consideration of personnel problems. It was agreed at that meeting that the so-called 48-hour work week order would have little effect on railroad operations, since most employees in unrestricted classifications already work 48 or more hours per week, the ODT announcement stated.

A review of Interstate Commerce Commission figures for ten months of 1942 showed that some classifications of em-

ployees on Class I roads were working more than 56 hours per week, it was said, and "most" railroad employees were reported by the ODT to be working above 50 hours per week on the average. In October, 1942, the average weekly employment in train and engine service reached 49.3 hours, the statement added, and since that time it has "undoubtedly increased considerably" as a result of the "elimination of mileage limitation rules on many railroads."

One of the major personnel problems now facing the railroad industry, continued the ODT announcement, is the avoidance of over-long working hours which lead to accidents and absenteeism. In 95 per cent of railroad shops the scheduled work week is at least 48 hours, it was reported, and in 13 per cent of the shops it is over that figure.

Railroad presidents attending the meeting were said to have reported that the employment of women is spreading rapidly throughout the industry. "One railroad, which has been losing an average of 2,000 men a month for the last three months, is replacing workers at the rate of 1,500 women and 500 men a month," the ODT stated. "Already women workers constitute 8 per cent of the road's 155,000 employees."

ODT Appointment

Arthur E. Bayliss, former assistant to the vice-president in charge of traffic of the New York Central, has been appointed assistant director of the Division of Traffic Movement of the Office of Defense Transportation, ODT Director Joseph B. Eastman announced March 1. Since May, 1942, Mr. Bayliss has been with the ODT in the capacity of executive assistant to Henry F. McCarthy, director of the division.

Applications for Use of Tank Cars for Wine Shipments

Application for the use of tank cars for the movement of wine may be filed monthly on Form PD-782, War Production Board's Beverages and Tobacco Division has announced. Under WPB General Transportation Order T-1 (Controlled Shipments), users of tank cars for the movement of wine are required to obtain a WPB authorization to use the cars assigned to them by the Office of Defense Transportation.

Form PD-782 should be filed with the Tank Car Administrator, ODT, 1355 Market street, San Francisco, Calif., who is in charge of allocating the multiple compartment wine tank cars, which are gradually being converted to other uses.

I. C. C. Service Orders

Because certain shippers of fresh fruits and vegetables in refrigerator cars have been moving such cars from one point to another within the switching limits of a terminal in order to delay unloading the car and increase the free time available under demurrage rules, the Interstate Commerce Commission has issued Service Order No. 112, effective March 10, which provides that the maximum free time allowed at destination on such cars shall be 48 hours, computed from the first 7:00

a. m. after the first placement of the car. Provision is made in the order for a restricted allowance for time elapsing between an order to move a car to another location and its placement at the new location.

At the same time the commission issued its Service Order No. 113, also effective March 10, revising demurrage charges on flat cars. On the so-called heavy duty flat cars of 151,000 pounds or over marked capacity, after the expiration of free time the charge provided in the order is \$2.20 per day or fraction for the first two days, \$5.50 for the third day, and \$15.00 thereafter. On other flat cars a similar scale of charges is set for the first three days, but the charge for succeeding days is fixed at \$11.00 per day.

Passenger Travel Restrictions in Canada Remain in Effect

Because of the continuance of abnormal weather conditions which have caused congestion and delay in the movement of important traffic on the Canadian railways, T. C. Lockwood, Transport Controller for the Dominion, has issued instructions extending until further notice the restrictions now in effect on parlor car services and passenger train operations, as explained in the *Railway Age* of February 13, page 367.

These restrictions apply chiefly to parlor car services between Montreal and Ottawa, between Ottawa, Montreal and Toronto, and between Ottawa and Toronto, with extra parlor cars discontinued entirely and extra sleeping cars severely restricted.

In his latest communication, Mr. Lockwood again stressed the importance of avoiding week-end travel and appealed to the public to refrain from all travel except in cases of extreme necessity.

New Routing Plan for Empties Returning from West

"More orderly and efficient handling of the present heavy eastbound movement of empty freight cars from the Pacific Coast is expected to result from operation of a routing plan recently inaugurated by the Car Service Division of the Association of American Railroads, in cooperation with the Office of Defense Transportation," said an ODT press release of March 3.

The release explained that the volume of westbound transcontinental freight traffic, expanded by shipments destined for export to Pacific war zones and by shipments of materials to West Coast shipyards, aircraft plants, and other war industries, has greatly exceeded the volume of eastbound traffic, and the piling up of empty cars at Western terminals "has been a cause of concern to ODT."

Under the new plan, the railroads "for the first time have arbitrarily set up routes for returning empty cars from the West Coast and have allocated percentages of returning empties to various mid-western gateways." As drawn up by the Car Service Division, the plan provides that the Union Pacific will distribute its empty cars from the West Coast at its Omaha-Council Bluffs and Kansas City gateways

on a definite percentage basis. Other roads connecting with western carriers at the Chicago and St. Louis gateways will handle cars of designated Eastern and Southern lines, "thus providing for more equitable distribution of the job of getting empty cars back to the owning lines."

ODT anticipates that the short-route plan, "will be to distribute more evenly the cars which have been concentrating in the Chicago area and permit the heavy return movement of empties over the Union Pacific to be diverted to other Mid-Western gateways, where they can be more expeditiously handled by the Eastern connecting lines."

WPB Issues Limiting Order on Rail and Fastenings

Under order L-211, Schedule 7, dated February 25, the WPB has issued an order requiring that "no person shall produce, fabricate, deliver or accept rail or track accessories which he knows or has reason to believe do not conform to a specification set forth in List 1 of this schedule."

List 1 includes the AREA emergency specifications issued in 1942 covering open-hearth rails; AREA specifications issued in 1936 covering quenched carbon-steel joint bars; AREA emergency specifications covering heat-treated carbon-steel bolts and nuts; AREA emergency specifications for track spikes, for soft steel and high carbon steel; and AREA emergency specifications for both soft and medium grade, and high-carbon tie plates. This order applies to all rail and fastenings manufactured after the date of issue.

New WPB Top Executives

Appointments to key positions on the War Production Board top staff were announced March 3 by Chairman Donald M. Nelson and Charles E. Wilson, executive vice-chairman. The announcement said the appointments are preliminary to a regrouping of WPB staff functions which are now being worked out in detail.

Ralph J. Cordiner, who has been director-general for war production scheduling, becomes a vice-chairman of WPB and will serve as a special assistant to Mr. Wilson. J. A. Krug, director of the Office of War Utilities, is named vice-chairman of the WPB in charge of materials distribution. He also becomes chairman of the Requirements Committee and will continue to serve as War Utilities director. Donald D. Davis, recently director of the Program Bureau, becomes WPB vice-chairman for operations. Curtis Calder, former director general for operations, will be executive assistant to Mr. Wilson.

William L. Batt will continue to serve as a WPB vice-chairman, and Col. Robert E. Johnson, head of the Smaller War Plants Corporation, retains the rank of deputy chairman.

Mr. Krug, was formerly director of power for the Tennessee Valley Authority. He was appointed head of the Power Division of the Office of Production Management in the summer of 1941, and held the same position with WPB until he became deputy director general and head of the

Distribution Bureau last August. He was appointed director of the Office of War Utilities last month.

Mr. Davis, former president of General Mills Inc., joined the staff of the WPB at the beginning of November, 1942, and on November 11 was appointed director of the Program Bureau. Mr. Cordiner was president of Schick, Incorporated, before joining the WPB staff on December 8, 1942. Mr. Calder is president of the American and Foreign Power Company of New York City, joined the staff of WPB in November, 1942, as the deputy director general for industry divisions, and on January 19, 1943, was appointed director general for operations.

A. A. R. Board Meeting

Directors of the Association of American Railroads at their regular monthly meeting in Washington, D. C., on March 26 discussed passenger service operations, the locomotive situation, and problems in connection with the supply of materials for maintenance. Also, they heard brief reports on the wage-increase proceeding and the reopened Ex Parte 148 rate case.

It was stated that the session was devoted to such discussions, and that no formal action was taken. As is his custom, Director Joseph B. Eastman of the Office of Defense Transportation was on hand, accompanied by Director V. V. Boatner of ODT's Division of Railway Transport. Mr. Eastman said afterwards that he didn't make any talk; he merely passed the time of day. It is understood, however, that he extended his greeting to express again his appreciation of the cooperation his office is receiving from the railroad industry, at the same time calling for intensified efforts.

Persons attending the meeting described the attitude of the railway executives as one of cautious optimism. Discussions were reported to have reflected a concern that everything be done which will contribute to a continuance of the wartime job the railroads are performing. There was a lot of talk about passenger service, i.e., how to get more service out of existing equipment. In fact, it was said, that there seemed to be more concern about the passenger situation than any other matter

under discussion; although there was much talk also about the locomotive situation.

The week-end peak still remains a major difficulty in connection with passenger operations. It was stated, nevertheless, that no travel controls were discussed or proposed. In that connection one of those attending the meeting expressed the view that not much of the passenger traffic is "wholly non-essential"—there is "not a hell of a lot of just running around."

The discussion of materials-for-maintenance problems was described generally as one which involved talk about possible future problems which might arise in this situation where the materials have been coming through "in short takes." In other words expressions were given more to apprehensions than to present difficulties.

Traffic reports presented at the meeting revealed that, for the first time in history, the railroads are experiencing a mid-winter peak in grain traffic; while the tonnage of coal moved during the week ended February 12 (12,000,000 tons) was the largest of any single week in 14 years. In the latter connection, it was recalled that the railroads recently established for "no-bill" coal cars a 25 per cent rule in lieu of the previous 75 per cent rule. (See *Railway Age* of February 20, page 408.)

The increased grain movement (running 15 per cent ahead of last year) was attributed to the release of storage space; while the rise in coal traffic is due to the inauguration of the six-day week in the coal mines. The movement of coal into New England by all forms of transportation is running about 17 per cent ahead of last year, the all-rail movement being up 45 per cent while the rail-water movement through Hampton Roads, Va., is down 49 per cent. The movement through North Atlantic ports—principally a Long-Island-Sound movement—is up 1400 per cent; but this is still a relatively small movement, amounting to about 100,000 tons a month.

Iron ore stocks on hand at furnaces and at the foot of the lakes are 26 per cent in excess of those of a year ago. Livestock traffic has recently been running about 22 per cent above last year, and it was stated that no special problems are developing in that connection. The increased livestock traffic is attributed to a shift from motor truck to rail transportation.

items of productive capital equipment, such as jigs and fixtures, dies and die blocks, portable pneumatic or portable electric tools, material required for minor relocation of plant machinery and equipment; and such items as hand tools, customarily purchased by the particular employer for sale to employees for use in the business in those cases where they would constitute operating supplies under established accounting practice if issued to employees without charge. It does not include fabricated containers; printed matter and stationery; paper, paperboard and products manufactured therefrom; molded pulp products; fuel or electric power; office machinery or office equipment; clothing, shoes or other wearing apparel, if made of leather or textiles, except asbestos clothing, safety clothing and safety gloves; production material; and materials for plant expansion or plant construction.

Specifications—Schedules 4, 5, 6 and 7 of Limitation Order L-211, issued February 24, limit the specifications for structural steel shapes, steel axles and forgings, mechanical steel tubing and rails and track accessories. Schedule No. 4 on structural steel shapes limits production to a relatively small number of standard specifications. The list of permissible sizes made standard by the schedule is one which was put into effect on a voluntary basis on February 1, 1942. Schedule No. 5 on steel axles and forgings is applicable to those used by railroads and rail transit services. Production of these items must conform to the terms of the schedule. However, production of axles for the repair and maintenance of railroad passenger cars and tenders built prior to February 24 is permitted by the schedule. Schedule No. 6 on mechanical steel tubing prohibits the production or delivery of cold drawn seamless tubing made of low carbon steel, except on an order for certain minimum quantities. Orders may be pooled for manufacture of the total of the pooled orders exceeds the minimum quantities shown in the schedule. In addition, the schedule requires that all tubing delivered to warehouses conform to standards of the American Iron and Steel Institute Manual as revised September, 1942, or to Army, Navy or Federal Government specifications. Schedule No. 7 on rails and track accessories covers production and delivery of new standard tee rails weighing over 60 lb. per yd.; plain grooved and guard types of new steel girder rails; new steel joint bars; tie plates; track spikes; and track belts and nuts. An exemption is provided in the case of certain standard length rails for use in the fabrication of frogs, switches and crossings. Before a manufacturer may deliver such lengths not conforming to the specifications, the purchaser must certify on the purchase order that they will be used only for the permitted purposes. All the schedules announced February 24 permit delivery of products already fabricated, and of those so processed that conformance to the specifications would be impractical. Schedules covering concrete reinforcement steel, railroad and transit wheels and tires, barbed wire, wire fencing, poultry netting and poultry flooring, were issued previously. Additional schedules on other steel mill products are being prepared.

Prices

Coal—Proceedings instituted by the Bituminous Coal Division to make such revisions in minimum soft coal prices as may be found necessary under provisions of the Bituminous Coal Act of 1937 have been postponed from February 24 to March 24. The postponement was granted on a petition filed by the Producers' Board for District No. 3, stating that execution of a new wage agreement with the United Mine Workers prior to March 24 might effect a change in the costs of production. The proceedings call for a public hearing at Washington, D. C., to ascertain what changes, if any, have occurred in the weighted average cost of producing coal in Minimum Price Area 1 since the last minimum price adjustment.

Diesel oil—Amendment No. 75 to Revised Price Schedule No. 88 (petroleum and petroleum products), effective March 1, fixes cents per gallon bulk maximum prices for distilled diesel oil of 28 deg. A.P.I. gravity and above at Mobile, Ala., and three Florida ports. The new prices are 4.625 cents per gal. at Mobile; 4.75 at Pensacola; 4.75 at Panama City, Fla.; and 4.75 at Port St. Joe, Fla. The adjustment was made to cover laid down cost plus the usual terminating charge of 10 cents per bbl.

Materials and Prices

Following is a digest of orders and notices of interest to railroads, issued by the War Production Board and the Office of Price Administration since February 19.

Inventories—Supplementary Limitation Order L-97-a-1, as amended February 23, requires producers of freight cars to use surplus inventory stocks, where possible, and thereby reduce the volume of new material required. The original order and previous amendments were designed to permit the exchange of inventories of car parts obtained prior to the freeze order on freight cars dated April 4, 1942. Some of this surplus supply was not being used because car purchasers specified accessories produced by manufacturers other than those who made the parts considered as surplus. The customer is allowed to appeal to WPB from the restrictions of the new action if it would result in an unreasonable hardship.

Maintenance supplies—A circular issued by the Transportation Equipment Division of WPB

contains detailed instructions to railroads for integrating requirements of maintenance and repair materials with the Controlled Materials Plan. The circular notified carriers that requests for allotments of controlled materials and requests for authorization of other CMP materials and fabricated parts for the second quarter must be submitted not later than March 20 on Form PD-351, as indicated in the circular.

Priorities—Amendment of Priorities Regulation No. 11, effective February 20, revises definitions of maintenance, repair and operating supplies to bring the definitions of these materials into conformity with those contained in Controlled Materials Plan Regulation No. 5. Priorities Regulation No. 11 governs all operations of Production Requirements Plan units. The changes were preceded by similar modifications of Priorities Regulation No. 3. According to amendment, "supplies" means maintenance and repair materials and operating supplies. It also includes minor

GENERAL NEWS

Leiserson Heads Mediation Board

Elected chairman after he and H. H. Schwartz had been sworn in

Reporting on its "first full meeting in over a year," the National Mediation Board on March 1 announced that Dr. William M. Leiserson had been elected chairman succeeding George A. Cook who had been holding that office "subject to a full Board meeting." Prior to the meeting Dr. Leiserson and former Senator Harry H. Schwartz of Wyoming, whose appointments were confirmed by the Senate on February 25, had taken their oaths of office administered by Board Secretary Robert F. Cole.

Thus has N.M.B. been restored to its full membership after a month during which it had only one member—Mr. Cook, who was left alone when David J. Lewis retired on February 1. At the same time, Otto S. Beyer resigned; he had been on leave of absence for more than a year while serving in his present role of director of the Office of Defense Transportation's Division of Transport Personnel.

As noted in the *Railway Age* of February 20, page 411, where photographs of Messrs. Leiserson and Schwartz appeared along with sketches of their careers, Dr. Leiserson is a former member of N.M.B. who was transferred in 1939 to the National Labor Relations Board where he has since served. He is also chairman of the National Railway Labor Panel which President Roosevelt's May 21, 1942, executive order created to provide wartime procedures whereby labor-management disputes in the railroad industry may be submitted to emergency fact-finding boards without the necessity for taking strike votes. His continuance in that role along with his duties as N.M.B. chairman, the March 1 announcement intimated, will leave him little time for mediation work in the field. As the announcement put it, "it will be necessary for him to spend the major portion of his time at the Board's headquarters in Washington."

The Senate's favorable action on Dr. Leiserson's nomination came unanimously and without discussion; while there was some opposition voiced to Mr. Schwartz who was assailed as a New Deal "rubber stamp," and who was confirmed only after a roll call vote of 46 to 20 with 30 senators not voting. The principal attack on Mr. Schwartz was made by the man who defeated him for reelection last November—Senator Robertson, Republican of Wyoming.

Featherbed Rules Incense Senator Bailey

Working rules on the railroads which require the employment of unneeded men in a time of labor scarcity were elucidated in a comprehensive letter by Elisha Friedman, published in the New York Times of February 21. In the appendix to the Congressional Record of February 22, Mr. Friedman's article was reprinted as an "extension of remarks" by Senator Josiah Bailey (D., N. C.).

In asking "leave to print," Senator Bailey said "the facts set forth in this letter startled and incensed me. The practices exposed could not be defended in peace-time and they must be denounced under existing conditions."

Mr. Robertson said that the appointee had been elected to the Senate in 1936 on a platform of "I will support Mr. Roosevelt in everything he does, and says, I will vote for every measure he wants, and, I will vote against everything he does not want. I will support him blindly." He thought that every member of the Senate would agree that Mr. Schwartz had "lived up to the very letter of that platform during the six years he was a member of this body." The Schwartz campaign for reelection, Mr. Robertson continued, was on this platform: "I have been a rubber stamp for the President for six years and I offer myself again as a rubber stamp for the ensuing six years." He called the N.M.B. nomination the "pay off," adding that the Senate from the record had "no right to assume" that the appointee would have the qualifications of "an unbiased interceder or propitiator, who shall be able to mediate fairly and justly."

Additional speeches in opposition to Mr. Schwartz came from two other new Republican senators—Moore of Oklahoma, and Wherry of Nebraska. Meanwhile the appointee was defended as "a man of outstanding character and ability" by Senator O'Mahoney, Democrat of Wyoming. He was also supported by Majority Leader Barkley, Democrat of Kentucky, and Senators Guffey of Pennsylvania, and Chavez of New Mexico, Democrats. The latter said he prefers "lame ducks" to "some of those who have been holding office heretofore." He is glad the "lame ducks" are being appointed "even at this late hour"; for he thinks it would be "better government for all concerned" if some of the present officeholders "could be supplanted by Democrats who lost in the elections last fall."

Air Express Pacts Now Being Revised

Provisions restricting independent actions of parties will be eliminated

Air lines and the Railway Express Agency, Inc., have recently agreed upon revisions of air-express contracts which will eliminate provisions calculated to restrict independent actions of the parties. This was revealed by Chairman Lea of the House of Representatives committee on interstate and foreign commerce when he inserted in the appendix to the February 26 issue of the Congressional Record a statement in answer to a House speech assailing the contracts which had been delivered on the previous day by Representative Nichols, Democrat of Oklahoma, the principal proponent of the subsequently-defeated resolution to create a new House standing committee on aviation.

The revisions of the contracts, Mr. Lea said, are in line with Civil Aeronautics Board suggestions growing out of the proceeding the Board instituted in 1939 to determine whether the contracts should be approved or disapproved as adverse to the public interest. They eliminate such provisions as those stipulating that the airline party shall not accept express business from anyone but R. E. A.; that R. E. A. will not make a contract with another air carrier without giving lines already under contract notice thereof and the opportunity to provide the new or improved service sought; that R. E. A. "shall not be required without its consent to establish air-express rates less than twice the existing first-class rail-express rates between the same points unless required by law; and that R. E. A. shall not during the period of the contract enter into the air-transportation business by operating its own aircraft.

"On February 22, 1943," Mr. Lea said, "counsel for the Express Agency and counsel representing the air carriers notified the Board that they had agreed upon revisions of the contracts in line with the suggestions of the Board. On February 24, American Airlines, Inc., filed a revision to the original contract between it and the Railway Express Agency, and on February 25, Eastern Air Lines, Inc., filed a similar revision of its original contract. The other air lines are in process of filing the same provisions in each of their contracts."

In his February 25 speech Mr. Nichols had charged that these R. E. A.-air line contracts, which he called "illegal," would become "legal" under section 29 of H. R. (Continued on page 483)

RR Socialization Threat Not Trivial

Burchmore sees the Resources Board plan as portion of comprehensive scheme

A warning that the report of the National Resources Planning Board on Transportation and National Policy be taken for what it is—a forerunner to government ownership and socialized transport—was made by John S. Burchmore, attorney and counsel of the National Industrial Traffic League, in an address on Post-War Transportation Plans at a luncheon meeting of the Traffic Club of Chicago on February 26. In his analysis of the report, he declared that three main charges of fundamental error should be leveled at its summary of conclusions and recommendations. First, he said, the entire report "is fundamentally erroneous in its concept of the functions and purposes and the place of transportation, for it is founded on the idea of government planning for the people and a pretense of planning for transportation. Instead of truly dealing with real problems of transportation, it conceives or contemplates problems of social-economic planning and proposes to relate transportation thereto."

Secondly, he asserted, the recommendations and conclusions "rest upon a false premise and that transportation is a failure. No one claims perfection or no room for improvement, but, in terms of ordinary American living, transport is a success and not a failure." The third error of the report, he said, is that the conclusions avoid saying that government ownership is indicated, since the authors recognize that "this would be too unpalatable a remedy, which at least must be sugar-coated or disguised or the dose postponed.

"Accordingly, their prescription for applying the national policy to the transportation question takes the form of recommendations which are of astounding proportions, promising to result ultimately either in government ownership or complete socialization of all transportation, public and private, and through that introduction, perhaps, is seen 'promise' of the socialization of our whole commerce and industry."

The national transportation agency, the creation of which is contemplated by the report, in the opinion of Mr. Burchmore, would be "a superpower agency—not a commission reporting to Congress or subject to any restraint—operating with an unlimited purpose, and so completely dominating the railroads financially and otherwise that government ownership would be inevitable, and in the meantime there would be the disadvantages of government domination without any of the responsibilities of government management." This agency, the speaker pointed out, would have authority "to co-ordinate all federal development activity in transportation along the lines of a general and progressive plan under appropriate legislative directives," and its functions would include the granting of government credit "in the formidable task

Perfect Shipping Campaign

The importance to the war program of good packing, secure loading and careful handling of freight shipments will be stressed in a nationwide campaign to be sponsored by the National Association of Shippers Advisory Boards, E. A. Jack, of Pittsburgh, general chairman of the committee in charge of the drive and general traffic manager of the Aluminum Company of America, has announced.

Participating in the campaign, which will be conducted during April, are the 13 regional Shippers Advisory Boards, the Association of American Railroads, the Railway Express Agency and other interests, Mr. Jack said. The drive, he pointed out, will be highlighted by the holding of a series of local meetings in many of the principal cities during the month.

Joseph B. Eastman, director of the Office of Defense Transportation, and Donald M. Nelson, chairman of the War Production Board, have endorsed the campaign.

of modernization and improvement of railroads that they may be included in the public works program aimed at upbuilding the country and sustaining the national economy and meeting the social problem."

I. C. C. Moves to Enforce Motor Carrier Credit Rules

The Interstate Commerce Commission has directed its Bureau of Motor Carriers to take "immediate action" toward the enforcement of commission rules and regulations governing the settlement of tariff rates and charges of common-carrier truckers. This was announced in a February 24 notice from I. C. C. Secretary W. P. Bartel which said also that "where necessary, court proceedings will be instituted to obtain compliance by carriers."

Generally, the commission rules allow motor carriers seven days in which to present bills, and seven days after the presentation for the collection thereof. Under the rules applicable to railroads, freight charges must be collected within 48 hours.

Court Again Finds Dividends in Stock Not Taxable

By a five-to-three decision announced March 1 by Justice Jackson, the Supreme Court has refused the request of the federal commissioner of internal revenue for a reconsideration of the basic decision on federal income taxation of stock dividends, the 1920 case of Eisner versus Macomber. No evidence of intent on the part of Congress to tax such dividends exists in the law, the court majority found, and the ruling followed that common stock dividends declared on common stock still do not constitute income subject to federal income tax. Justices Douglas, Black and Murphy dissented, while Justice Rutledge did not participate in the decision.

Private Bond Sale Defended by Erie

At I. C. C. hearing, officers deny situation allowed competitive bidding

The agreement entered into between the Erie and Morgan Stanley & Co. under which that firm undertook to underwrite a \$14,000,000 issue of the road's 3½ per cent first consolidated mortgage bonds in order to finance the purchase of an Erie note of like amount held by the Reconstruction Finance Corporation was, under the circumstances as they understood them, in the interest of the Erie and its stockholders, several officers and directors of the road testified at hearings this week in Washington, D. C., before Oliver E. Sweet, director of the Interstate Commerce Commission's Bureau of Finance.

This hearing resulted from opposition to an application of the Erie to the commission for authority to issue and sell the bonds involved. Protesting parties included the Chesapeake & Ohio, in the role of an Erie stockholder; two investment firms, Otis & Co. and Halsey Stuart & Co.; and certain other Erie stockholders. The Railway Labor Executives Association and the Brotherhood of Railroad Trainmen also were permitted to intervene as protestants.

As the hearing opened on March 1 Director Sweet ruled that the case would be confined to circumstances bearing on the particular bond issue involved, and would not be broadened, as some of the protestants had requested, into a general inquiry into the desirability of requiring competitive bidding on railroad security issues. Nevertheless several days were required for the testimony of witnesses and cross-examination by counsel of interested parties.

The statements of officers of the Erie and Chesapeake & Ohio revealing the circumstances in which arrangements for this bond issue were conducted, and the terms of the financing proposed, have been reported in the financial news columns of *Railway Age* of February 13 and 20. These facts and arguments were repeated and enlarged upon in oral testimony and exhibits offered at the hearing by J. K. Thompson, vice-president of the Erie in charge of accounting, finance and purchases; Henry S. Sturgis, vice-president of the First National Bank of New York, who is an Erie director and a member of the road's finance committee; R. E. Woodruff, president of the Erie; Harold Stanley of Morgan Stanley & Co.; and others.

Testimony and questioning of these witnesses called by the Erie occupied substantially all of the first three days of the week, but two witnesses called by the Chesapeake & Ohio were heard out of turn; these were John W. Stedman, vice-president of the Prudential Insurance Co., also an Erie director, and Henry A. Mulligan, treasurer and director of the Reconstruction Finance Corporation. The Erie was represented in the proceedings by Edward Bourne, the Chesapeake & Ohio by C. W. Sellers, and Otis & Co. and Halsey Stuart & Co. by former Senator Robert J. Bulkley.

In the course of their testimony, the Erie officers explained that they contemplate a long-range debt reduction program to take care of all maturities until 1971, into which the proposed \$14,000,000 bond issue has been so fitted that they expect sinking fund and equipment trust obligations and other maturities to be met without difficulty. Refinancing the R. F. C. note was an essential step in this program, they pointed out, and they arranged that refinancing as soon as market conditions and the road's circumstances allowed.

Answering questions tending to develop the contention of the C. & O. that a better price could have been obtained for the proposed bond issue, the Erie officers pointed out that they felt that the best interests of their company required them to give consideration not only to the direct annual saving in fixed charges that might result, itself an uncertain quantity in view of the federal tax situation, but also to the desirability of obtaining a wider distribution of the road's securities and removing from its debt structure the \$17,500,000 of first consolidated mortgage bonds pledged as collateral for the R. F. C. loan. These advantages the Erie could obtain, they said, only if it took up the R. F. C. note before that note was sold elsewhere, and they understood when the issue was presented to the board of directors for decision that the R. F. C. had under consideration an offer for the note. (Such an offer was made, according to Mr. Mulligan's testimony, by Shields & Co., though this firm's inquiry, he said, related to only a part of the \$14,000,000 note).

Faced with the necessity, as they saw it, of taking up the R. F. C. note or letting it be sold elsewhere, the directors considered that the Erie's interests would best be served, it was testified, by making an offer for the note, which it was decided to do. Before making such an offer, however, it was necessary to obtain assurance that funds would be available to complete the transaction, and in the limited time they were allowed in which to make the proposal to the R. F. C. the directors had no alternative except to enter into the agreement with Morgan Stanley & Co., the Erie's witnesses asserted. Once this agreement was made they were bound by it, even though other firms later offered a better price for the bonds, they added, not conceding, however, that counsel for the protesting parties accurately described the terms of the offers actually made.

The question of competitive bidding could not properly be brought into the situation, Erie witnesses contended, because of the time limitations under which they had to act. What they were really faced with, they asserted, was an alternate offer to bid, made after the decision had been reached to accept the Morgan Stanley & Co. proposal, but before the written contract was signed.

Road Planners Report Progress

Highway planners of 22 states are developing detailed plans for post-war road and bridge construction estimated to cost at least \$170 million, the Public Roads Administration of the Federal Works Agency announced March 1. This activity results from the \$10 million appropriation for en-

gineering and planning authorized in the 1941 Defense Highway Act, and is part of a general post-war highway building program, to be financed jointly by the states and the federal government, which is expected to cost around \$500 million.

In making this progress report Commissioner MacDonald of the Public Roads Administration pointed out that this program, while designed to absorb men demobilized from the armed forces and war industries, is expected to relieve highway congestion and speed traffic movement in and around the larger cities.

Freight Claim Division Cancels 1943 Session

The Freight Claim division of the Association of American Railroads has cancelled its 1943 annual session usually held in June, its General committee "having taken cognizance of existing affairs in the transportation world and industry in general and having reached the conclusion that conditions are such as to make it advisable to forego the holding of the 1943 annual session."

Argentine Railway Results for 1941-42

Operating results of all the Argentine railways, both state and privately-owned, for the year ended June 30, 1942, showed an encouraging improvement as compared with the previous year, according to statistics issued by the Instituto de Estudios Economicos del Transporte, reproduced in the Railway Gazette (London).

Total receipts for all lines amounted to

528,912,000 pesos, an increase of 48,739,000 pesos, or a little more than 10 per cent over the preceding period. (The Argentine peso is currently quoted at 71.8724 cents per paper peso.) Although the railways were authorized to increase rates early in April, 1942, these increases became effective too late to affect the year's results and were made mainly to enable the companies to restore wage cuts and to resume their contributions to the pension fund.

Revenues for the private companies totaled 408,246,931 pesos for the 1941-42 period, as compared with 376,219,253 pesos for the 1940-41 period, an increase of 32,027,678 pesos. The state railways' gross revenue was 120,665,204 pesos for 1941-42, an increase of 16,711,419 pesos as compared with the 1940-41 period.

The aggregates freight tonnage carried amounted to 45,234,000, an increase of 5,520,000, or 13.9 per cent over the previous period. Ton-miles increased 1,708,000,000, or 13 per cent. Passenger traffic on most of the Argentine railways was heavier than in 1940-41—the number of passengers carried amounting to 172,675,000 in 1941-42, an increase of 4.5 per cent over the 1940-41 period.

A Railroad President Gets 50 Year Service Emblem

C. McD. Davis, president of the Atlantic Coast Line, on February 28 completed fifty years of service with the road and the occasion was celebrated by the presentation to him of a diamond-studded fifty-year service emblem. Presentation was made by Robert Scott, editor of the Atlantic Coast Line News, at an informal gathering in



C. McD. Davis Receives a 50-Year Service Emblem

Left to right: F. W. Brown, vice-president—operation; W. D. McCaig, comptroller; R. J. Doss, vice-president—traffic; President C. McD. Davis; and Robert Scott, editor of Atlantic Coast Line News.

the president's office. Mr. Davis began his railroad career as a messenger boy for the Wilmington & Weldon, which is now part of the Atlantic Coast Line, on March 1, 1893. He was elected president of the road in October, 1942.

A Sample of Debt and Interest Charge Reductions

Thirty-five "selected Class I steam railroads" during 1942 reduced their indebtedness by \$300,735,471 or 3.76 per cent, and their annual interest accruals dropped \$11,606,770 or 3.58 per cent, according to a compilation made public on February 27 by the Interstate Commerce Commission. The compilation was based on returns to Division 4's request of last December for information as to the extent to which the carriers had followed that suggestion in the commission's report for 1941 which called for the application of favorable current earnings to the reduction of debt.

The total debt reduction noted above includes both long-term and short-term debt, the reduction in long-term debt alone being \$297,737,166 or a drop of 3.73 per cent during the year. Likewise the bulk of the reduction in interest accruals relates to long-term debt, such accruals being down \$11,560,142 or 3.57 (actual 1942, compared with estimated 1943).

Of the 35 roads listed, the Chicago, Burlington & Quincy achieved the largest percentage reduction in its long-term debt which was down 8.27 per cent from \$251,558,377 to \$230,745,758. C. B. & Q. inter-

est accruals were down 5.69 per cent; the Bangor & Aroostook's 10.02 per cent was the largest percentage figure on the interest list.

The largest amount for debt reduction was reported by the New York Central—\$54,536,356. This represented a cut of 5.55 per cent, while N.Y.C. interest accruals were down 4.4 per cent. Second to the N.Y.C. was the Illinois Central, its debt off \$26,440,833. Debt increases of 4.68 per cent and 0.65 per cent, respectively, were reported by the Delaware & Hudson and the Lehigh Valley; but their interest accruals were nevertheless down 6.12 per cent and 0.46 per cent, respectively. All 35 roads showed some reduction in interest accruals.

East's Oil Receipts Up Slightly

Tank car shipments of petroleum into District No. 1—the Atlantic coast states—for the week ended February 20 were slightly above the figure for the preceding week, Petroleum Administrator Ickes has announced. Deliveries averaged 820,553 barrels a day for the entire district, and 157,279 barrels a day for New England. Box car shipments of kerosene in metal drums into New England reached an average of 24,039 barrels a day during the same week, a new high for this movement and an increase of 5,326 barrels a day from the previous week's average.

Costs of in-transit handling of petroleum and its products moving into District 1 by higher-cost substitute methods

subject to compensatory adjustments provided by Regulation No. 1, Amendment No. 1, of the Defense Supplies Corporation are now being certified by the Office of Defense Transportation, an ODT announcement of March 4 indicated. Certificates of request for in-transit handling of oil are issued by Fayette B. Dow of the ODT's Washington staff.

Would Increase Retirement Act Benefits 10 Per Cent

Representative Van Zandt, Republican of Pennsylvania, has introduced H. R. 2028 to provide for an increase of 10 per cent in annuities and pensions under the Railroad Retirement Act. A statement in support of the bill was inserted by Mr. Van Zandt in the appendix to the March 1 issue of the Congressional Record.

There he said that it should not be necessary to increase the employer or employee contributions. It is proposed to pay the additional cost "out of the general funds of the Treasury." Mr. Van Zandt thought such procedure "amply justified" when the benefits which would accrue "are recognized."

Western Railway Club to Hear About Freight Cars

The general subject of freight car design, maintenance and use will be discussed at a meeting of the Western Railway Club on Monday evening, March 15, at the Hotel Sherman, Chicago. J. D. Rezner, superintendent car department, Chicago, Burlington & Quincy, will open the meeting with a discussion of Improvements in Freight Cars Since World War I. Collaborating speakers will include L. R. Wink, superintendent car department, Chicago & North Western; F. G. Moody, superintendent car department, Northern Pacific; R. D. Bryan, mechanical assistant, Atchison, Topeka & Santa Fe; and J. A. Deppe, superintendent car department, Chicago, Milwaukee, St. Paul & Pacific.

January Truck-Freight Volume 16.6 Per Cent Above 1942

The volume of freight transported by motor truck in January showed "a seasonal decline" of 3.3 per cent under December, but was 16.6 per cent above January, 1942, according to American Trucking Associations, Inc. The A. T. A. index figure, based on the 1938-40 average monthly tonnage of the reporting carriers, was 168.1 for January.

Comparable reports were received by A. T. A. from 195 motor carriers in 41 states. They transported an aggregate of 1,259,627 tons in January, as against 1,302,154 tons in December, and 1,080,332 tons in January, 1942.

Almost 82 per cent of all tonnage transported in the month was reported by carriers of general freight. The volume in this category decreased 4.1 per cent under December, but held 15.9 per cent over January of last year. Transporters of petroleum products, accounting for slightly more than nine per cent of the total, showed an increase of 0.8 per cent over December, and an increase of 53.5 per cent over January, 1942. Haulers of iron and steel

Reductions in Indebtedness and Interest Charges

| Name of Road* | Total Long and Short Term Debt Outstanding Dec. 31, 1942 | Net Changes in Interest Charges | | | | | |
|--|--|---------------------------------|----------|---|--|--|----------|
| | | Net Changes in Funded Debt | | Interest Accruals on Long and Short Term Debt Outstanding from 1941 | | Increase (+) or Decrease (-) from 1942 | |
| | | Amount | Per Cent | Estimated | | Amount | Per Cent |
| Atchison, Topeka & Santa Fe Sys. Atlantic Coast Line and subsidiaries | \$304,964,750 | -\$18,266,000 | -5.65 | \$11,380,666 | | -\$406,561 | -3.45 |
| Baltimore & Ohio | 148,323,273 | -\$11,949,450 | -7.46 | 5,733,062 | | -600,943 | -9.49 |
| Bangor & Aroostook | 665,199,318 | -\$11,569,609 | -1.71 | 29,765,472 | | -323,056 | -1.07 |
| Boston & Maine | 16,643,000 | -\$950,000 | -5.40 | 637,740 | | -70,993 | -10.02 |
| Chicago, Burlington & Quincy | 126,260,622 | -\$4,282,219 | -3.28 | 5,000,000 | | -416,725 | -7.69 |
| Chesapeake & Ohio | 230,745,758 | -\$20,812,619 | -8.27 | 8,992,907 | | -542,132 | -5.69 |
| New York, Chicago & St. Louis Pere Marquette | 211,335,000 | -\$9,010,000 | -4.09 | 7,325,392 | | -167,545 | -2.24 |
| Delaware & Hudson | 130,087,918 | -\$7,879,858 | -5.71 | 5,607,734 | | -217,112 | -3.73 |
| Duluth, Missabe & Iron Range | 69,800,000 | -\$2,812,000 | -3.87 | 3,087,111 | | -130,220 | -4.05 |
| Elgin, Joliet & Eastern | 57,119,208 | +\$2,552,225 | +4.68 | 2,008,120 | | -130,996 | -6.12 |
| Erie | 28,320,000 | -\$1,602,000 | -5.35 | 915,188 | | -50,550 | -5.23 |
| Great Northern and subsidiaries | 25,591,000 | -\$1,070,000 | -4.01 | 729,326 | | -23,937 | -3.18 |
| Gulf, Mobile & Ohio | 314,593,338 | -\$8,225,999 | -3.85 | 8,136,143 | | -291,295 | -3.46 |
| Illinois Central System | 41,478,742 | -\$20,102,667 | -6.01 | 12,888,251 | | -796,088 | -5.82 |
| Kansas City Southern and subsidiaries | 345,225,468 | -\$1,095,703 | -2.57 | 1,794,055 | | -33,704 | -1.84 |
| Lehigh Valley | 82,235,933 | -\$26,440,833 | -7.11 | 13,773,700 | | -906,000 | -6.17 |
| Louisville & Nashville | 151,903,113 | -\$3,636,665 | -4.23 | 3,323,991 | | -103,834 | -3.03 |
| Missouri-Kansas-Texas and subsidiaries | 223,875,439 | +\$374,873 | +0.25 | 6,663,705 | | -62,949 | -0.94 |
| New York Central and its lessors and wholly owned subsidiaries | 104,758,970 | -\$5,789,704 | -2.52 | 8,451,725 | | -328,677 | -3.74 |
| Cleveland Union Terminals | 927,462,746 | -\$7,262,016 | -6.48 | 4,684,411 | | -273,248 | -5.51 |
| Indiana Harbor Belt | 49,874,900 | -\$54,536,356 | -5.55 | 36,408,076 | | -1,676,056 | -4.40 |
| Pittsburgh & Lake Erie | 9,125,000 | -\$1,322,000 | -2.58 | 2,445,567 | | -64,715 | -2.58 |
| Norfolk & Western | None | -\$100,000 | -1.08 | 389,500 | | -4,500 | -1.14 |
| Northern Pacific | 51,365,532 | -\$81,000 | -0.16 | None | | -3,263 | -0.15 |
| Pennsylvania and subsidiaries | 327,465,294 | -\$2,494,568 | -0.76 | 14,331,616 | | -135,500 | -0.94 |
| Pittsburgh & West Virginia | 1,069,172,390 | -\$19,534,739 | -1.79 | 44,020,145 | | -1,203,006 | -2.66 |
| Reading and subsidiaries | 19,608,000 | -\$527,000 | -2.62 | 813,771 | | -31,326 | -3.71 |
| Southern Pacific Transp. System | 118,262,182 | -\$7,964,501 | -6.31 | 4,923,583 | | -220,908 | -4.29 |
| Southern System and subsidiaries | 707,426,817 | -\$25,093,680 | -3.43 | 28,480,252 | | -964,224 | -3.27 |
| Texas & Pacific and subsidiaries | 312,160,453 | -\$20,578,013 | -6.18 | 13,884,104 | | -1,216,211 | -8.05 |
| Union Pacific and leased lines | 77,326,000 | -\$736,000 | -0.94 | 3,802,246 | | -26,586 | -0.69 |
| Virginian and subsidiaries | 372,653,858 | -\$2,037,779 | -0.54 | 13,751,733 | | -66,902 | -0.48 |
| Wabash and subsidiaries | 60,056,714 | -\$317,421 | -0.53 | 2,251,650 | | -10,115 | -0.45 |
| (New Company) | 101,997,091 | -\$5,582,170 | -5.19 | 3,844,614 | | -106,893 | -2.71 |
| Total | \$7,687,923,442 | -\$300,735,471 | -3.76 | \$312,358,556 | | -\$11,606,770 | -3.58 |

* Several roads reported including all their subsidiaries as requested; in other cases the information was furnished on a corporate basis. The extent of coverage is generally indicated in the titles in the stub of the table.

products reported approximately three per cent of the total; the volume of these commodities increased 8.1 per cent over December, but decreased 3.7 per cent under January of last year.

Slightly more than six per cent of the total tonnage reported was miscellaneous commodities, including tobacco, milk, textile products, coke, bricks, building materials, cement and household goods. Tonnage in this class showed a decrease of 3.2 per cent under December, and a decrease of 0.9 per cent under January of last year.

Post-War Planning Bills

The Senate committee on finance this week reported favorably Senate Resolution 102 which was introduced recently by its chairman—Senator George, Democrat of Georgia—to set up a 10-member special Senate committee on "Post-War Economic Policy and Planning."

Meanwhile two additional post-war planning measures have been introduced in the House by Representative Fish, Republican of New York, and Representative Dewey, Republican of Illinois. The Fish proposal (House Resolution 138) would set up a special nine-member House committee on "Post-War Economic Policy and Planning"; while the Dewey resolution (House Resolution 143) calls for a 14-member House committee on "Post-War Economic Reconstruction."

Another Jersey Canal Bill

Senator Walsh, Democrat of Massachusetts, has introduced S.782 to provide for the construction of the New York Bay-Delaware River section of the Atlantic Intracoastal Waterway. It is a companion measure to H.R. 1880, previously introduced in the House by Representative McCormack, Democrat of Massachusetts, as noted in the *Railway Age* of February 27, page 447. The House committee on rivers and harbors has assigned the McCormack bill for hearing March 9.

Wage Hearings Begun in Pacific Electric Controversy

Hearings before an emergency board, consisting of James H. Wolfe, chairman, Frank P. Douglass and Dr. Gordon S. Watkins on a wage controversy between the Pacific Electric Company (controlled by the Southern Pacific) and the Brotherhood of Railroad Trainmen were begun at Los Angeles, Cal., on March 1. The controversy is principally over a demand of the union for pay rates for men in passenger service equal to passenger service rates on steam railroads. The company contends that transit company rates should continue to prevail. Introduction of preliminary testimony and exhibits outlining the history of the company's various lines and of rates of pay to employees marked the hearing in the first day. The hearings are expected to continue at least a week.

"Victory Gardens"

With the thought that everything possible should be done to aid the production of needed food to meet the increasing demand, several railroads have invited their officers

and employees to take over unused portions of railroad property for "victory gardens."

The Baltimore & Ohio, for instance, has posted a bulletin at several thousand points along its line advising its employees that unused portions of its right-of-way or other company property, where soil conditions are favorable, are available for this purpose. Division superintendents have been given authority to assign parcels of ground for vegetable garden purposes upon application and compliance with regulations. The road has also made available a free booklet, entitled "Victory Gardens," giving helpful advice and instructions to potential right-of-way farmers. Copies of the booklet may be secured from the road's agricultural development department at Baltimore, Md.

Winners in P. R. R. Safety Contest

The New York Zone of the Pennsylvania won first place in the seventeenth annual contest conducted by the company to promote safety among employees, according to an announcement by President M. W. Clement. The New York Zone had the best general showing in all departments during 1942. Awards are based on the lowest number of accidents, in proportion to number of man-hours worked.

The Altoona Works won first place among the regional groups for the best showing in its maintenance of equipment department, the only department in which it competes. Among the general divisions of the railroad, the Lake division, with headquarters in Cleveland, had the best record in all departments.

In the superintendent's divisions—the

primary operating units of the system—the winner in Group A (made up of the larger divisions) was the Long Island. In Group B (divisions of intermediate size) the winner was the Erie and Ashtabula division, with headquarters in Cleveland, while in Group C (smaller divisions) the Logansport division, with headquarters at Logansport, Ind., made the best showing.

In the departmental contests the winners among the superintendents' divisions and large shops are as follows:

Maintenance of way department.—Group A, Pittsburgh division; Group B, Ft. Wayne division; Group C, Monongahela division, headquarters at Pittsburgh.

Maintenance of equipment department.—Group A, Juniata shop, Altoona, Pa.; Group B, South Altoona Foundry, Altoona, Pa.; Group C, Wilkes-Barre division, headquarters at Sunbury, Pa.

Station department.—Group A, New York division, headquarters Jersey City, N. J.; Group B, Ft. Wayne division, headquarters Ft. Wayne, Ind.; Group C, Grand Rapids division, headquarters Grand Rapids, Mich.

Freight and yard train service department.—Group A, Panhandle division, headquarters Pittsburgh; Group B, Erie & Ashtabula division, headquarters New Castle, Pa.; Group C, Toledo division, headquarters Toledo, O.

Engine service department.—Group A, Philadelphia Terminal division; Group B, Erie & Ashtabula division; Group C, Monongahela division, headquarters Pittsburgh.

Pullman Wins Safety Contest

A special award for having achieved 2,123,165 man-hours without a lost-time accident was presented recently to the Pullman Company as winner of the sixth statewide No-Accident Endurance Contest sponsored by the Associated Industries of New York, Inc.

The record was made by Pullman at its Mott Haven yards in the Bronx, N. Y., where 400 employees worked for 21 months without a lost-time accident. It was a case



James P. Leach (left) Accepting from Martin F. Hilfinger of Associated Industries of N. Y., the Safety Trophy Won by Pullman's Mott Haven Yards

of "sole survivorship"—the record having been set last December when the last of the competing concerns had an accident and dropped out of the contest. The Pullman record is still unbroken, and the men have now worked more than 3,500,000 man-hours without an accident.

James P. Leach, superintendent of the Pullman Company, in accepting the award from Martin F. Hilfinger, president of the Associated Industries of New York, said that the record was accomplished by obtaining full cooperation from all supervisory forces and enlisting the personal interest of the rank-and-file worker. He quoted from a report by the company's safety director which showed a perfect safety record for all Pullman shops in 1942.

November Bus Revenues 82.9 Per Cent Above November, 1941

Class I motor carriers of passengers reported November, 1942, revenues of \$23,906,120 as compared with \$13,070,747 in November, 1941, an increase of 82.9 per cent, according to the latest monthly compilation prepared by the Interstate Com-

and also authorize him to amend state regulations to conform to federal action in the removal of "state barriers which impede war traffic."

As outlined in an ODT statement February 26, the bill would confer on the governors of the several states "flexible authority" to take emergency action in five different fields of regulation: Staggered hours of employment; maximum highway vehicle speed limits; size and weight limits of highway vehicles; license and fee requirements applicable to out-of-state highway vehicles; and conservation of rubber or other critical materials.

Illinois Commission Enjoined in Pullman Fare Increase

The Superior Court at Chicago, on February 20, entered an injunction restraining the Illinois Commerce Commission from interfering with a 10 per cent increase in Pullman fares within Illinois, which became effective on February 23. The Pullman Company sought relief from the court, when on February 10, the Commission denied its petition for permission to increase rates for parlor and sleeping

| | Passenger Revenue | | Passengers Carried | |
|------------------------------|-------------------|------------------|--------------------|------------------|
| | November 1942 | November 1941 | November 1942 | November 1941 |
| New England Region | \$1,189,508 | \$574,033 | \$3,285,074 | \$1,497,435 |
| Middle Atlantic Region | 2,423,510 | 1,457,687 | 5,297,371 | 3,082,059 |
| Central Region | 3,208,356 | 2,083,211 | 5,568,130 | 3,358,488 |
| Southern Region | 6,665,533 | 3,493,061 | 8,996,507 | 4,533,257 |
| Northwestern Region | 619,980 | 435,035 | 529,865 | 360,197 |
| Mid Western Region | 1,974,259 | 1,141,643 | 1,683,648 | 898,233 |
| Southwestern Region | 4,166,350 | 1,936,392 | 5,614,546 | 2,376,893 |
| Rocky Mountain Region | 310,924 | 122,600 | 198,138 | 91,173 |
| Pacific Region | 3,347,700 | 1,827,085 | 4,078,514 | 2,341,656 |

merce Commission's Bureau of Transport Economics and Statistics from 147 reports representing 152 bus operators. Passengers carried were up 90.1 per cent, from 18,539,391 to 35,251,793.

The breakdown by regions of the bus revenue and traffic figures, which exclude data on charter or special party service, is given in the accompanying table.

ODT Widens Control of Trucks

To enable the Office of Defense Transportation to arrange for fuller utilization of trucks and other highway vehicles Director Eastman on February 25 issued General Order ODT 21, Amendment 5, providing authority to require the renting or leasing of equipment by a common or contract carrier to a private carrier. The original order made no provision for private truck operators, but this amendment extends ODT control over the transfer of trucks from one carrier to another regardless of the type of carriers involved.

ODT Presses States for Action on "Traffic Barriers"

Through a report of the Council of State Governments, called "Suggested State War Legislation for 1943," the Office of Defense Transportation has proposed to the 44 state legislatures in session this year an Emergency Transportation Act, which would both empower the state governor to act to meet wartime transportation emergencies without further legislative measures

car accommodations within the state to conform with interstate rates approved by the Interstate Commerce Commission in January. Despite approval of the increase by the Interstate Commerce Commission, the petition for the injunction said, the state body has ordered the increase in rates within the state canceled, contending that it is an "arbitrary, unreasonable and unlawful" action. Pullman's petition holds that the state order has the effect of denying the right to establish reasonable rates and requires the application of rates that are confiscatory. The company also pointed out that the increase is needed to meet wage increases granted employees.

Equipment Installed

Class I railroads on February 1 had 19,281 new freight cars on order, according to the Association of American Railroads. On the same date last year, they had 68,070 on order.

This year's February 1 total included 9,342 hopper, 7,955 gondolas, 1,774 flat, 67 plain box cars, and 143 miscellaneous freight cars.

Class I roads also had 471 new locomotives on order on February 1, compared with 543 on the same day in 1942. The February 1, 1943, total included 335 steam and 136 electric and Diesel-electric contrasted with 249 steam and 294 electric and Diesel-electric one year ago.

Class I roads put 1,683 new freight cars in service in January compared with 8,143 in the same month last year. The former

included 620 hopper, 584 gondola, 370 flat, 65 automobile box, 17 plain box and 27 miscellaneous freight cars. They also put 49 new locomotives in service in January, of which 44 were steam and five were electric and Diesel-electric. New locomotives installed in January, 1942, totaled 71, of which 26 were steam and 45 were electric and Diesel-electric.

Freight Car Loading

Loadings of revenue freight for the week ended February 27 totaled 782,855 cars, the Association of American Railroads announced on March 4. This was an increase of 30,406 cars, or 4.0 per cent, above the preceding week, an increase of 996 cars, or 0.1 per cent, above the corresponding week last year, and an increase of 26,185 cars, or 3.5 per cent, above the comparable 1941 week.

Loading of revenue freight for the week ended February 20 totaled 752,449 cars and the summary for that week, compiled by the Car Service Division, A.A.R., follows:

Revenue Freight Car Loadings

For the Week Ended Saturday, February 20

| District | 1943 | 1942 | 1941 |
|---------------------------------|-----------|-----------|-----------|
| Eastern | 143,054 | 165,006 | 152,634 |
| Allegheny | 156,582 | 174,593 | 151,951 |
| Pocahontas | 54,659 | 48,878 | 49,989 |
| Southern | 122,563 | 120,761 | 110,864 |
| Northwestern .. | 83,481 | 92,331 | 70,290 |
| Central Western .. | 118,216 | 114,448 | 94,113 |
| Southwestern .. | 73,894 | 58,403 | 48,682 |
| Total Western Districts | 275,591 | 265,182 | 213,085 |
| Total All Roads | 752,449 | 774,420 | 678,523 |
| Commodities | | | |
| Grain and grain products | 51,625 | 36,087 | 27,233 |
| Live stock | 13,150 | 9,940 | 9,662 |
| Coal | 173,848 | 158,679 | 150,837 |
| Coke | 14,292 | 14,490 | 14,064 |
| Forest products | 41,160 | 44,892 | 36,691 |
| Ore | 11,102 | 13,032 | 12,055 |
| Merchandise l.c.l. | 90,308 | 150,012 | 139,280 |
| Miscellaneous | 356,964 | 347,288 | 288,701 |
| February 20 | 752,449 | 774,420 | 678,523 |
| February 13 | 764,950 | 782,701 | 721,176 |
| February 6 | 755,386 | 783,962 | 710,196 |
| January 30 | 734,582 | 815,565 | 714,354 |
| January 23 | 703,578 | 818,081 | 710,752 |
| Cumulative Total, 8 Weeks | 5,803,634 | 6,199,562 | 5,564,304 |

IN CANADA.—Car loadings for the week ended February 20 totaled 59,381, compared with 60,472 for the previous week and 60,849 for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

| Total for Canada: | Total Cars | Total Cars Rec'd from Loaded Connections |
|-------------------------|------------|--|
| February 20, 1943 | 59,381 | 36,259 |
| February 13, 1943 | 60,472 | 36,300 |
| February 6, 1943 | 62,303 | 36,986 |
| February 21, 1942 | 60,849 | 31,489 |

Cumulative Totals for Canada:

| | | |
|-------------------------|---------|---------|
| February 20, 1943 | 456,033 | 271,241 |
| February 21, 1942 | 481,562 | 246,633 |
| February 22, 1941 | 413,709 | 219,837 |

Further Hearing in 28300 and 28310 at Washington, March 29

Further hearing in connection with the Interstate Commerce Commission's Nos. 28300 and 28310 investigations of the class rate structure and consolidated freight classification has been set for March 29 at Washington, D. C. The hearing, like the previous ones, will be before Division 2

consisting of Commissioners Aitchison, Spaw and Alldredge.

In connection with the hearing notice, the commission made public statements which will be offered in evidence by members of its staff. They are a study entitled "Territorial Movement of Carload Freight on May 27 and September 23, 1942," prepared by Dr. Beatrice Aitchison, associate economist of the Bureau of Transport Economics and Statistics; a study entitled "Unit Costs for the Eastern Territory including and excluding the Pocahontas Territory and the state of Kentucky, Unit Costs for the Southern Territory including and excluding the state of Kentucky and Other Data," prepared by Dr. Ford K. Edwards, head cost analyst of the Bureau; and a prepared statement of testimony to be offered at the hearing by Dr. Edwards.

Air Express Facts Now Being Revised

(Continued from page 477)

1012, the measure proposing amendments to the Civil Aeronautics Act recently reported favorably from the committee on interstate commerce. The section changes present provisions with respect to approval of contracts by C. A. B. The proposed change, as appraised by Mr. Nichols, "means that contracts could be entered into indiscriminately and never have to be filed with the Board, and would be legal and beyond the anti-trust laws until the Board could find them and compel their filing and finally disapprove of them." If the change is made, the Oklahoman went on, "you can wrap the air lines of this country up in a package, tie a red ribbon around it, and deliver it to the railroads."

Mr. Lea called the foregoing a "wrong" interpretation of the proposed changes. "The amendment," he said, "merely gives the Board power to permit carriers to refrain from filing contracts the Board does not want to see. The Board can require them to file all contracts or may state specifically what contracts it does want filed. The only purpose of the amendment is to eliminate an administrative burden on the Board and the air lines." And the proposed new provisions "were suggested to the committee by the Civil Aeronautics Board and by the representatives of the air transport industry."

"Clearly wrong," said Mr. Lea of the Nichols charge that R. E. A. fixes the rates that the air lines will charge for the transportation of air express. The now-eliminated contract provision that such rates could not be reduced below twice rail-express rates, he went on, "has never come into operation because the air lines have never fixed rates which come even close to twice those of the railroads. The air lines on a number of occasions have refused to reduce rates when the Railway Express Agency has asked them to. I understand that the present express rates fixed by the air lines are approximately seven times the rail-express rates."

Carrying the debate into this week's sessions, Mr. Nichols made a March 1 speech in reply to Mr. Lea; whereupon the latter inserted another statement into the appen-

Proposed Aviation Committee Rejected by House

The House of Representatives on March 2 rejected by a roll-call vote of 257 to 142 the resolution which proposed to create a new House standing committee on aviation to take from the committee on interstate and foreign commerce jurisdiction over legislation relating to commercial air transportation. The resolution—House Resolution 23—was sponsored by Representative Nichols, Democrat of Oklahoma.

Although the formal debate which preceded rejection of the resolution was relatively brief, it came after a month or so wherein pros and cons of the measure had been discussed at length in speeches on the House floor and extensions of remarks in appendices to the Congressional Record. Among other material, there went into the Record several letters expressing organized labor's opposition to the proposal. These included communications from J. G. Luhrs, executive secretary of the Railway Labor Executives' Association, and John T. Corbett, national legislative representative of the Brotherhood of Locomotive Engineers.

Speaker Rayburn took the floor to argue against the resolution, while Minority Leader Martin of Massachusetts spoke in favor of it. The principal statement in opposition, however, was made by Representative Wolverton, Republican of New Jersey, ranking minority member of the interstate commerce committee. Mr. Wolverton's insistence that the issue was not a "party matter" was in accord with Speaker Rayburn's statement that "this is not a leadership fight, because the gentleman from Massachusetts and I agreed not to make it so."

dix to the Congressional Record of the same date. Mr. Nichols insisted that the contract situation which he outlined in his February 25 talk was the situation as of that time; "and actually is still the situation except that since that time some of the air lines have reached agreement with R. E. A. to delete from these contracts all that portion of the contracts with monopolistic tendencies and particularly rate fixing control." He added that the same situation will prevail until the new contracts have been approved by C. A. B. Without, as he put it, meaning to say that his speech "had anything to do with the agreements to delete the monopolistic portions of the contracts," Mr. Nichols nevertheless asserted that "the fact remains that after years of quibbling over these very provisions, only last week agreement was reached."

In his reply to this second Nichols speech, Mr. Lea included a statement C. A. B. views as to the meaning of section 29 of H. R. 1012, which was embodied in a letter from C. A. B. Assistant General

Counsel S. G. Tipton. Mr. Tipton pointed out that R. E. A. is an air carrier indirectly engaged in air transportation; and that one effect of the new section would be to confer upon C. A. B. "additional power to regulate relationships between direct and indirect air carriers." Also, Mr. Tipton concluded that section 29 would not affect the application of the anti-trust laws to existing R. E. A. contracts with air lines. Mr. Nichols had charged that under the proposed section such contract could be placed "beyond the authority of the Department of Justice to prosecute for violation of the Sherman Anti-Trust Act."

Pullman Travel Greatest on Record

Sleeping car traffic in January, including military and civilian travel, was the greatest for any month on record, preliminary figures revealing that approximately 2,000,000 passenger-miles were traveled by Pullman during the month.

"The tremendous job faced by the railroads this year is most clearly demonstrated by comparing this two-billion yardstick with previous records," said George A. Kelly, vice-president of the Pullman Company. "It is a 57 per cent increase over the 1,274,000,000 passenger-miles traveled by Pullman in January, 1942, which was by far the heaviest travel year American railroads have ever experienced. Total Pullman passenger-miles for 1942 exceeded 19 billion, far outstripping the previous all-time record of 14.4 billion set in 1926. These comparative figures, laid against our January mark, serve to show us the job which faces us this year, when passenger traffic may be three times as great as in an average pre-war year."

He attributed the great upsurge in travel not only to heavy troop movements, but to sharply increased civilian requirements as well.

Club Meetings

The New England Railroad Club will hold its 60th annual meeting at the Hotel Touraine, Boston, Mass., on March 9, at which new officers will be elected to serve for the coming year. Through the courtesy of the General Electric Company, three short motion pictures will be shown following the business meeting. The shorts are entitled "Curves of Color," "Excursions in Science" and "Sight-Seeing at Home."

The Car Department Association of St. Louis will meet at 8 p.m. on March 16 at the Hotel DeSoto. The speaker will be Harry A. Dodge of the Harbor Plywood Corp. Following Mr. Dodge's address, the film "Food for Total Security," a story of refrigerator car construction, will be shown.

The 20th annual meeting of the Ohio Valley Transportation Advisory Board will be held at the Deshler-Wallick Hotel, Columbus, Ohio, on March 8-9. Maurice T. Otto, traffic manager of the Dayton (Ohio) Chamber of Commerce will preside over the meeting, the purpose of which is to strengthen the cooperation now prevailing between shippers and receivers of freight and the railroads. At a luncheon

sponsored by the Columbus Chamber of Commerce and the Columbus Traffic Club on March 9, W. H. Day, vice-president of the National Association of Shippers Advisory Boards, will be the principal speaker.

The Eastern Car Foreman's Association will hold its next meeting at 8 p.m. on March 12 at the Engineering Societies Building, 29 West 39 Street, New York City. "How Snubbers Improve the Riding Quality of Freight Cars" will be the topic discussed in an address by G. Q. Lewis, chief engineer of W. H. Miner, Inc., Chicago.

New England Coal Movement

Requirements that permits must be obtained for movements of coal from certain Atlantic coast ports, scheduled to become effective March 1, have been postponed by the Office of Defense Transportation until April 1, an ODT announcement on March 1 indicated. The postponement, accomplished by Suspension Order ODT 15, Revised-3, is intended, the statement points out, to allow shippers to take voluntary action to bring about the movement of all coal shipments in the affected territory by the method and route resulting in the most efficient utilization of facilities.

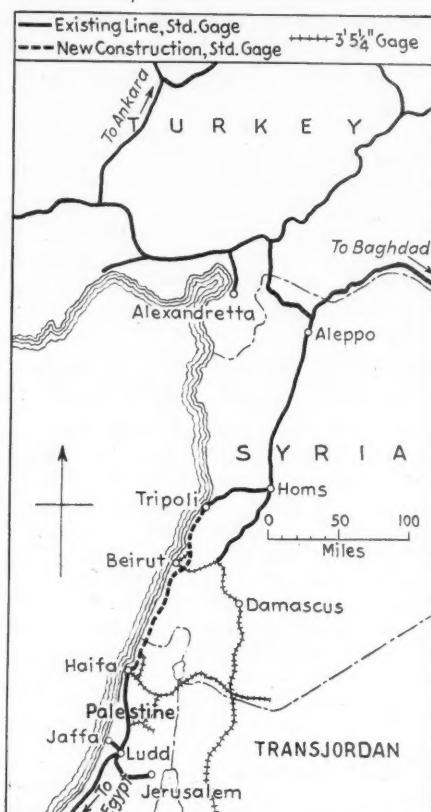
The effect of the suspension order is to allow coal to continue to move inland from docks along the New England coast without ODT permits.

A decrease in all-rail coal deliveries in New England—described by Solid Fuels Co-ordinator Ickes as the result of delays in rail operations caused by severe weather—was reported for the week ended February 20, when receipts in that region totaled 5,761 cars, a reduction of 1,079 cars from the previous week. These figures included both anthracite and bituminous movements; the decrease amounted to 507 cars in the case of anthracite and 572 cars for bituminous.

Palestine-Syria Railway Link Completed

Press reports from the Middle East recently made public indicate that the final link between the standard-gage railway lines of Palestine and Syria, extending from Beirut to Tripoli, has been opened to military traffic. The completion of this connection makes it physically possible to move traffic over standard-gage lines all the way from Egypt into Turkey and Europe on the north, and as far east and south as Baghdad in Iraq, whence a connection is made with the Persian gulf by a narrow-gage line to Basra. The development of these railways is surveyed in a recent issue of the *Railway Gazette* (London) from which the accompanying map and these notes are largely derived.

The original trunk line of the standard-gage railways in Palestine was begun in the Spring of 1916 to furnish a supply line for the British forces operating from Egypt. The railhead was on the eastern bank of the Suez Canal. The main line reached Ludd in February, 1918, where it made connection with the Jerusalem-Jaffa Railway. The latter railway was converted to standard-gage during the next few months



and by the end of 1918 the main line had advanced nearly 62 miles to Haifa.

After the war ended, the Palestine government took over, at valuation, this standard-gage railway built by the Egyptian Expeditionary Forces, and also reimbursed the French company which originally owned the Jerusalem-Jaffa line, combining these sections into what was known as the Palestine Railway.

For the next 20 years no further steps were taken to complete the final link needed to establish standard-gage railway connections between Asiatic Turkey and Egypt. The completion of this connection assumed strategic importance when the Vichy government was ousted from Syria in July, 1941, and work thereon was immediately begun by the Allied forces. It was decided to build the connection along the Mediterranean coast from Haifa through Beirut, to connect with the standard-gage line at Tripoli. The fact that such a project was in progress was first made public in February, 1942, and in September of that year it was learned that the single-track section from Haifa to Beirut, a distance of approximately 90 miles, had been opened to through traffic.

This left a distance of only about 50 miles between Beirut and Tripoli to complete. In December, 1942, it was announced in press dispatches from the Middle East that the Beirut-Tripoli section, while probably not entirely completed, had been opened to military traffic.

The northern section of the Beirut-Tripoli line traverses territory which is about four-fifths solid rock. When it was learned that one tunnel, about a mile in length, and at least two others of approximately 300 ft., would have to be cut through rock, it was decided to turn the job over to

engineers from Africa, Australia and New Zealand, who were skilled in this type of work. The result was that this project, which normally might have been expected to take about two years to build, was actually completed in nine months. Approximately 3,000 men working in 24-hour shifts were employed and materials from India, Burma, Turkey and the United States were used.

The low-level route along the coast was chosen as the location for the line to avoid the necessity for extensive work in bridging the deep ravines which would have been encountered had the line been laid along the top of the cliffs. Full particulars regarding the many engineering problems presented in the construction of this line are not available at this time because of military censorship. In addition to the engineering difficulties involved the weather also presented a problem—with dust storms, torrential rains, snow and river floods—and in addition there was constant danger of air attack by the enemy.

Towing Under I. C. Act

Reporting on reargument in the No. W-359 proceeding involving the status of the Cornell Steamship Company, the Interstate Commerce Commission has affirmed Division 4's prior findings to the effect that towers engaged in interstate towing for the general public are subject to the Interstate Commerce Act's Part III, as is transportation by water between two ports in a single state but passing through the waters of another state.

Cornell operates within the limits of New York Harbor, N. Y., and N. J., and on the Hudson river between New York Harbor and Waterford, N. Y., and all intermediate points. Because the applicant "holds itself out to the public to tow for anyone with ability and willingness to pay for the service," the commission also upheld Division 4's finding that the transportation involved was common carriage. It did, however, conclude that those of Cornell's operations which are entirely within New York Harbor are exempt from regulation under section 303(g), and ordered correction of the certificate accordingly.

The majority report reaches its conclusions after examining various court decisions bearing on the questions involved. Separate expressions came from Commissioner Johnson, concurring in part, and from Commissioners Splawn and Patterson, both dissenting. Commissioner Lee's agreement with Mr. Johnson was noted; they were of the opinion that the transportation involved was not interstate for the purposes of regulation under Part III. Commissioners Splawn and Patterson, among other objections to the majority report, both asserted their view that Congress did not intend to bring towers under I. C. C. jurisdiction.

Missouri River Carrier Gets I. C. C. Certificate

The Interstate Commerce Commission, Division 4, has issued to the Sioux City and New Orleans Barge Lines, Inc., a certificate authorizing continuance of common-carrier operations between points on

the Missouri river and between such points and points on the Mississippi river between Alton, Ill., and Memphis, Tenn. The decision is in No. W-431.

The commission noted that the applicant had been in continuous operation since August 4, 1940, "except for interruptions during the winter freezing periods." Also, that its organization was the "culmination of the efforts of local business and civic interests which, for a period of 35 years, have been attempting to secure navigation on the Missouri river, linking its navigation with that on the Mississippi river and connecting waterways." Its stockholders (\$16,450 has been issued out of an authorized \$300,000) "represent a fair cross section of the civic and industrial life of Sioux City."

The report also reveals that the barge line now has only one steel-hull towboat and one dry cargo barge, the latter being of the standard type used on the Ohio and Mississippi which is of a draft "too heavy or too deep to operate satisfactorily on the more shallow channel of the Missouri river." But it has blueprints and specifications of equipment suitable for Missouri-river operations, war restrictions having prevented its obtaining any such equipment.

The majority report represents the views of Commissioners Porter and Mahaffie. Commissioner Miller, dissenting in part, would have refused authority to operate on the Mississippi, restricting the operations to those between Sioux City and St. Louis, East St. Louis, and Alton.

Chile Plans "Container" System

The State Railways of Chile plan to inaugurate a "container" system of delivery in 1943 to reduce packing charges, insure against theft, and to lessen transportation costs, according to the Foreign Commerce Weekly.

The containers, strongly constructed boxes equipped with iron or rubber wheels and of 5 and 10-ton capacity, will be taken by tractors from railroad stations to business establishments, where they will be packed and locked and then returned to the railway station for shipment. At destination the containers will be delivered to consignee, unloaded and the empty containers returned to the railroad.

A door-to-door transportation service on luggage, beds, and small boxes has been in operation on the state railways for some years. Tariffs were established between Santiago and Valparaiso in October, 1942, for such a service on carload shipments or merchandise, regardless of weight.

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago, Ill.

AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.—W. R. Curtis, G. M. & O. R. R., 105 W. Adams St., Chicago, Ill.

AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. P. Soebbing, Railway Exchange Bldg., St. Louis, Mo.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York, N. Y.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—F. O. Whiteman, Room 332, Dearborn Station, Chicago, Ill. Annual

meeting, May 18-20, 1943, La Salle Hotel, Chicago, Ill.

AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill.

AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elinor Heffern, Room 822, 310 South Michigan Avenue, Chicago, Ill. Annual meeting, October 19-21, 1943, Hotel Sherman, Chicago, Ill.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—H. C. Millman, Ind. Agent, Pennsylvania R. R., Union Station, Chicago, Ill.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—Page N. Price, Norfolk & Western Magazine, Roanoke, Va.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—J. H. Hunt, Tower Bldg., Washington, D. C.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York, N. Y.

Railroad Division—E. L. Woodward, *Railway Mechanical Engineer*, 105 W. Adams St., Chicago, Ill.

AMERICAN TRANSIT ASSOCIATION.—Guy C. Heckler, 292 Madison Ave., New York, N. Y.

AMERICAN WOOD PRESERVERS' ASSOCIATION.—H. L. Dawson, 1427 Eye St. N. W., Washington, D. C. Annual meeting, April 27, 1943, Palmer House, Chicago, Ill.

ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Bldg., Washington, D. C.

Operations and Maintenance Department.—Charles H. Buford, Vice-President, Transportation Bldg., Washington, D. C.

Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.

Operating Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Transportation Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.

Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York, N. Y.

Freight Station Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.

Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y.

Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.

Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.

Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.

Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y.

Mechanical Division.—Arthur C. Browning, 59 E. Van Buren St., Chicago, Ill.

Electrical Section.—J. A. Andreucci, 59 E. Van Buren St., Chicago, Ill.

Purchases and Stores Division.—W. J. Farrell (Executive Vice-Chairman), Transportation Bldg., Washington, D. C.

Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill.

Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington, D. C.

Car-Service Division.—E. W. Coughlin (Assistant to Chairman), Transportation Bldg., Washington, D. C.

Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington, D. C.

Accounting Division.—E. R. Ford, Transportation Bldg., Washington, D. C.

Treasury Division.—E. R. Ford, Transportation Bldg., Washington, D. C.

Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington, D. C.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Claim Agent, Alton R. R., 340 W. Harrison St., Chicago, Ill.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—P. R. Austin, Johns-Manville Sales Corp., Merchandise Mart, Chicago, Ill.

CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcil Ave., N. D. G., Montreal, Que.

Regular meetings, second Monday of each month,

except June, July and August, Windsor Hotel, Montreal, Que.

DEPARTMENT ASSOCIATION OF ST. LOUIS, Mo.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Stremmel, 6536 Oxford Ave., Chicago, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—Ralph J. Feddor, 2803 N. Campbell Ave., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, Hotel Sherman, Chicago, Ill.

CENTRAL RAILWAY CLUB OF BUFFALO.—Mrs. M. D. Reed, 1840-42 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—J. T. Bouher, 424 W. 33rd St. (11th floor), New York, N. Y.

EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York, N. Y. Regular meetings, second Friday of January, March, April, May, October and November, 29 W. 39th St., New York, N. Y.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker Street, No. Little Rock, Ark.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington, D. C. Annual meeting, September 14-16, 1943, Edgewater Beach Hotel, Chicago, Ill.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Touraine, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.

PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box A, Sausalito, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, Cal., and Hotel Hayward, Los Angeles, Cal.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago, Ill.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 624 W. Adams St., Chicago, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone Section of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 507 Shell Bldg., St. Louis, Mo.

ROADMasters' AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elinor Heffern, Room 822, 310 S. Michigan Ave., Chicago, Ill. Annual meeting, September 21-23, 1943, Hotel Sherman, Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R. Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga. Ry., Savannah, Ga.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago, Ill.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island, N. Y. Annual meeting, October, 1943.

WESTERN RAILWAY CLUB.—E. E. Thulin (Executive Secretary), 122 S. Michigan Ave., Chicago, Ill. Regular meetings, third Monday of each month, except January, June, July, August and September, Hotel Sherman, Chicago, Ill.

Construction

BALTIMORE & OHIO.—This railroad has awarded a contract for the construction of washroom and locker facilities at its Ivorydale, Cincinnati, Ohio, shops, at estimated cost of \$24,000, to Edward A. McCarthy & Son, of Cincinnati.

CENTRAL OF NEW JERSEY.—This railroad has awarded a contract for reinforcing the column foundations of three bridges at Elizabeth, N. J., at estimated cost of \$32,640, to Senior & Palmer, Inc., of New York.

GULF, MOBILE & OHIO.—This road is making a line change at Maxwell Field, Montgomery, Ala., which will require about 80,000 cu. yd. of grading. All work is being done with company forces except the grading, a contract for which has been awarded to H. L. Vandigriff, Montgomery.

LOUISVILLE & NASHVILLE.—This road is rearranging and extending yard tracks at Leewood, Tenn., and at Greenville, Ala., at an estimated cost of \$120,218.

PENNSYLVANIA - PITTSBURGH & LAKE ERIE.—The Pennsylvania Public Utility Commission has approved an application by the Pennsylvania and the Pittsburgh & Lake Erie for the removal and relocation of certain of the railroads' tracks crossing at grade and extending along South Jefferson street, Sherman street and George street, in New Castle, Pa. Total cost of the improvements is estimated at \$42,525, including \$16,727 for railroad work and \$25,798 for highway work.

WAR DEPARTMENT.—The U. S. Engineer office, Jacksonville, Fla., has awarded a contract, amounting to more than \$50,000 and less than \$100,000, to the C. G. Kershaw Contracting Company, Birmingham, Ala., for the construction of various facilities, clearing and grubbing, excavation, track laying and surfacing in Florida.

WAR DEPARTMENT.—The U. S. Engineer office, Mobile, Ala., has awarded a contract, amounting to less than \$50,000, to L. L. Jarrell, Whistler, Ala., for the construction of a railroad wye connection in Alabama. The U. S. Engineer office, Atlanta, Ga., has awarded a contract, amounting to more than \$1,000,000, to the Foster & Creighton Company, Nashville, Tenn., the Forcum-James Construction Company, Dyersburg, Tenn., and the Oman Construction Company, Nashville, for site grading, clearing, grubbing, road grading, paving and surfacing of roads, water and sewer systems and a railroad spur track at an Army hospital in Tennessee.

THE CANADIAN PACIFIC encountered one of its worst periods of blizzards and extremely cold weather during the month of January, it was revealed recently. A railway mileage equivalent to more than three times the earth's circumference had to be cleared by snowplows—83,136 miles of right-of-way were involved, an increase of 72,860 or 709 per cent over the corresponding month in 1942.

Equipment and Supplies

LOCOMOTIVES

B. & O. Buys 20 Steam Locomotives

The Baltimore & Ohio has placed an order for 20 steam locomotives of 2-8-8-4 wheel arrangement with the Baldwin Locomotive Works.

Southern Pacific Buys 20 Steam Locomotives

The Southern Pacific is reported to have placed an order for 20 steam passenger and freight locomotives of 4-8-8-2 wheel arrangement with the Baldwin Locomotive Works for 1943 delivery. These are in addition to 30 locomotives of the same type ordered from Baldwin in March, 1942, on which deliveries are reported to be now under way.

Pennsylvania Orders 50 More Steam Locomotives

The Pennsylvania is reported to have ordered 50 steam freight locomotives of 2-10-4 wheel arrangement from its own shops. These are in addition to 35 locomotives of the same type ordered by the railroad from its shops in 1942 for delivery during the early months of 1943. Previous orders were placed for 25 engines in March, 1942, and for 10 more in September, 1942.

THE ATCHISON, TOPEKA & SANTA FE is reported to have placed an order for 10 steam freight locomotives of 4-8-4 wheel arrangement with the Baldwin Locomotive Works for 1943 delivery. These are in addition to 20 locomotives of the same type ordered from Baldwin in November, 1942, which are reported also scheduled for delivery this year.

THE BESSEMER & LAKE ERIE is reported to have placed an order for five steam freight locomotives of 2-10-4 wheel arrangement with the Baldwin Locomotive Works for 1943 delivery. These are in addition to five locomotives of the same type ordered from Baldwin in April, 1942, which are reported also scheduled for 1943 delivery.

THE NEW YORK, CHICAGO & ST. LOUIS has placed an order for 15 steam freight locomotives of 2-8-4 wheel arrangement with the Lima Locomotive Works for 1943 delivery. These are in addition to 10 locomotives of the same type ordered from Lima in February, 1942, which were also scheduled for 1943 delivery.

IRON AND STEEL

THE CENTRAL OF NEW JERSEY has placed an order for 1,000 tons of rail with the Bethlehem Steel Company.

Abandonments

ATLANTIC COAST LINE.—Division 4 of the Interstate Commerce Commission has authorized this company to abandon operation of, and the Tampa Southern to abandon, a portion of the so-called Ellenton Belt from Palmetto, Fla., to Reeder, 4.93 miles, together with a spur extending 3.41 miles from Seth, Fla.

BALTIMORE & OHIO.—At the request of the applicants, the Interstate Commerce Commission has dismissed without prejudice the application of this company to abandon operation of, and the Baltimore & Ohio Southwestern to abandon, a line between Omaha, Ill., and Shawneetown, 17.7 miles.

CHESAPEAKE & OHIO.—This road has applied to the Interstate Commerce Commission for authority to abandon the 14.7-mile section of its Blue Jay sub-division between Glen Junction, Va., and the end of the line at a point beyond Flat.

DELAWARE, LACKAWANNA & WESTERN.—Division 4 of the Interstate Commerce Commission has authorized this company to abandon its branch from Alford Junction, Pa., to Montrose, 9.93 miles, provided that the line or any part thereof must be sold to any responsible party offering its net salvage value during a 60-day period beginning February 23. This provision is intended to afford certain industries served by the branch an opportunity to arrange for a connection at Montrose with a line of the Lehigh Valley.

DETROIT & MACKINAC.—This company has applied to the Interstate Commerce Commission for authority to abandon its line from National City, Mich., to Prescott, 11.8 miles.

ILLINOIS CENTRAL.—In a proposed report in Finance Docket 13992 Examiner J. B. Prichard has recommended that the Interstate Commerce Commission deny the application of this company and the Chicago, St. Louis & New Orleans to abandon operation of and to abandon, respectively, a line from Kevil, Ky., to East Cairo, 16.08 miles, on the ground that it is an essential part of a short line which carries sufficient traffic to warrant continued operation.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—In a proposed report in Finance Docket 14017 Examiner R. Romero has recommended that the Interstate Commerce Commission authorize this company to abandon its branch from Kingston, Ga., to Rome, 17.7 miles.

THE C. P. R. AIR LINES, LTD., reports that all air freight records for a single contract were broken recently when it moved 4,000 tons of freight in connection with the Shipsaw power dam project on the Saguenay river. Some of the odd shipments carried under this contract included 8 horses and 4 oxen to be used in stump removal; a complete steam shovel and a 1,600-lb. motor boat, 20 ft. long.

Supply Trade

Fairbanks, Morse & Co.

The annual report of Fairbanks, Morse & Co. for the year ending December 31 shows a consolidated net profit of \$2,677,960 for the year, compared with a net profit of \$2,920,618 for 1941. The net profit before deducting Federal income taxes for the year 1942 amounted to \$12,777,960, compared with \$8,620,618 for 1941. The company has substantially completed and placed in operation a program of expansion of plant facilities to meet the needs of the Navy department. Three Army-Navy "E" awards have been given the company since it has undertaken war work. The measure of its war performance in 1942 is shown by net sales of \$78,122,333, which are the highest in the history of the company and compare with \$48,520,958 in 1941.

Lima Locomotive Works Built 176 Engines in 1942

In its annual report to the stockholders for 1942, the Lima Locomotive Works reports completing 176 locomotives in 1942, as compared with 50 in 1941. Sales billed in 1942, including deliveries under cost-plus-a-fixed-fee government contracts, amounted to \$63,743,395, as compared with sales of \$16,042,683 in 1941, an increase of \$47,700,712, attributable to all classes of the company's products. Since early in 1941, practically the entire productive capacity of the company has been given over to the war effort, in the manufacture of war materiel and of locomotives for the government and for domestic railroads.

Unfilled orders at the end of 1942 for normal products only, locomotives, power shovels and cranes, castings, forgings and miscellaneous items, amounted to \$25,369,700. In addition, orders in January amounted to \$12,561,800, making a total of \$37,931,500 available for 1943 production. The company reported that at the end of 1942 unfilled orders for locomotives, the construction of which had been approved by the War Production Board, numbered 233 and that in January additional orders for 122 locomotives were released by the War Production Board, making a total of 355 scheduled for 1943 completion.

Greatly increased federal income taxes, reductions in the profit on war contracts through renegotiation, and the creation of necessary reserves against possible post-war inventory losses and for other war contingencies, materially affected the net income for the year. Net profit for 1942 was \$1,643,451, equivalent to 2.57 per cent of sales and to \$7.78 per share of capital stock. Estimated federal income and excess profits taxes for the year (after deducting a debt retirement credit of \$672,000 resulting from the payment before December 31, 1942, of all outstanding bank loans) were \$6,400,000, or nearly four times the net profit. Renegotiation of war contracts in respect to sales in 1942 was reported completed, subject to the approval of the Under-Secretary of War.

Current assets at the year-end were \$31,687,810 and current liabilities \$23,332,043, current assets exceeding current liabilities by \$8,355,767, as compared with \$6,863,265 at the close of 1941. A comparison of operating results for the two years is set forth below.

| | 1942 | 1941 |
|---|--------------|--------------|
| Sales | \$63,743,395 | \$16,042,683 |
| Cost of sales* | 54,513,655 | 13,347,399 |
| Profit from operations.. | \$9,229,740 | \$2,695,284 |
| Other Income (Interest, dividends, etc.) | 290,201 | 194,231 |
| Other charges (Interest, development costs, etc.) | 346,354 | 159,370 |
| Provision for federal income taxes: | | |
| Normal tax | 352,000 | 630,000 |
| Excess profits tax... | 6,048,000 | 720,000 |
| Prior years' adjustments | 130,135 | |
| War contingencies reserve | 1,000,000 | 110,000 |
| Net profit | \$1,643,451 | \$1,270,145 |

* Including depreciation charged as follows: 1942—\$168,094; 1941—\$164,499.

S. F. Bowser & Co., Inc., has won the Army-Navy production award for the second time, giving it the right to add a white star to its original "E" flag.

H. W. Prentis, Jr., president of the **Armstrong Cork Company**, has become a member of the Business Advisory Council of the United States Department of Commerce, Washington, D. C. Mr. Prentis joined the organization at the invitation of Mr. Jesse Jones, Secretary of Commerce.

H. M. Rowlette has been elected vice-president and general manager of the **Whiting Corporation (Canada) Ltd.**, with headquarters at the company's new offices at 45 Richmond street, W., Toronto, Ont., to succeed **Colonel James Mess**, who is now employed full-time with government duties at Ottawa. Mr. Rowlette has been with the parent company, the Whiting Corporation, at Harvey, Ill., since 1912.

The Edward G. Budd Manufacturing Company has received a renewal of the Army-Navy "E" award and a new pennant with two stars has been presented to the company by the commandant of the Fourth Naval District. The Budd Company won its first Navy "E" flag more than a year ago and this was followed by the Army-Navy "E" with one star. The latest award is the third received by the company for its war production record.

Alvin A. Borgading, who was appointed purchasing agent of the **American Car & Foundry Co.** in December, 1942, has been appointed general purchasing agent for the company. **George W. Brown**, assistant purchasing agent since 1939, has been appointed to succeed Mr. Borgading as purchasing agent, and **Herbert Streater**, assistant purchasing agent, has been appointed assistant general purchasing agent.

The Army-Navy "E" burgee was presented to the Chicago plant of the **Union Asbestos and Rubber Company** on February 22, for excellence in its production of asbestos insulation for the air forces. Commander E. C. Forsyth, United States

Navy, Bureau of Ships, Washington, presented the pennant to J. N. Balch, secretary of the company and J. Russell Johnston, assistant area supervisor, United States Army Air Corps presented pins to the employees. This is the company's second "E" award, the first having been given to its Paterson, N. J., plant.

For the past three years assembly lines of the **American Car & Foundry Co.** have been delivering light tanks at what is described by Army officials as "an unprecedented rate" and thousands of these tanks have been reported in action in Egypt, Libya, the Russian Caucasus, Australia, in Buna and on Guadalcanal, and recently as leading the British Eighth Army into Tripoli. Credit for preparing a.c.f. plants in 1939 to turn out the vast number of these tanks and other ordnance since produced is given to **Charles J. Hardy**, who this week completed 10 years as president of a.c.f. Prior to his election as president on March 2, 1933, Mr. Hardy served for 25 years as the company's general counsel.

OBITUARY

Arthur A. Hale, vice-president and a director of the **Griffin Wheel Company**, who died at Coral Gables, Fla., on February 21, as reported in the *Railway Age* of February 27, was born in 1884 and gradu-



Arthur A. Hale

ated from the University of Illinois in 1905. On July 1 of that year he entered the employ of the Griffin Wheel Company as assistant to the chief engineer and on May 26, 1911, was appointed sales agent at Boston, Mass. On August 1, 1922, he was promoted to Eastern sales manager with headquarters at New York and on June 1, 1927, he was elected a vice-president. A year later he was transferred to Chicago and on February 6, 1939, he was elected a director.

James A. Emery, a vice-president and director of Ford, Bacon & Davis, Inc., died on February 23. He was 71 years of age. Mr. Emery was graduated from Massachusetts Institute of Technology in 1893. His first work was in the design and construction of electric railway properties and in 1898 he joined Ford, Bacon & Davis, becoming vice-president in 1923 and direc-

tor in 1928. In his long career as an engineer Mr. Emery was active in the construction and operation of street railways, electric railways, subways and bus lines. He represented his firm in the recent State of New Jersey railroad tax assessment suits and in the merger of the Kansas City Southern with the Louisiana & Arkansas, and was engineer for the court in the Gulf, Mobile & Northern reorganization. Other of his work was carried out for the Alton; the Seaboard Air Line; the Elgin, Joliet & Eastern; the Bessemer & Lake Erie and many important industrial and utility companies.

Stanton Hertz, vice-president and assistant to the president of the Copperweld Steel Company, Glassport, Pa., died on February 27. He was 48 years of age. Mr. Hertz was graduated from the Alabama Polytechnic Institute and was a lieutenant in the Engineers Corps in World War I. He began his career with the Copperweld Steel Company in 1921 and served successively as chief engineer at the New York office, general manager of sales and vice-president. He was executive di-



Stanton Hertz

rector of the Copper Wire Engineering Association from 1936 to 1941, and returned to Copperweld in 1941 as vice-president and assistant to the president.

Claude W. Bender, who retired on April 1, 1938, as general manager of the Mississippi Valley division of the lamp department of the General Electric Company, died on January 24. He was 66 years of age. Mr. Bender was associated with the General Electric Company for nearly 30 years and at the time of his death was acting in an advisory capacity for the Mississippi Valley division. He began his career in the electrical department of the Altoona, Pa., shops of the Pennsylvania in 1889, leaving railroad work for a few months in 1902 to join the Royal Hanna Coal & Coke Co. as electrical engineer. He returned to the Pennsylvania in that same year as a draftsman in the electrical engineering department at Altoona and was appointed assistant to the electrician, motive power department, Lines East, in 1903. He joined the National Lamp Company (later the National Lamp Works of the General Electric Company) as commercial

engineer in 1909 and was appointed manager of the commercial development department in 1913. He was appointed manager of the division which was the forerunner of the Mississippi Valley division at St. Louis, Mo., in 1923, from which posi-



Claude W. Bender

tion he retired in 1938. Mr. Bender prepared the Railway Electrical Engineers' Handbook, Electric Light and Illumination, which was published by the engineering department of the National Electric Lamp Association.

Financial

BALTIMORE & OHIO.—Second Invitation for Tenders—The Baltimore & Ohio has issued a second invitation for tenders on 18 issues of its secured obligations. A similar invitation for tenders on these issues was made on December 21, 1942, and resulted in the railroad's accepting tenders covering \$29,272,150 principal amount of the bonds and notes (See *Railway Age* of December 26.) These were tendered at an aggregate price of \$12,896,925, or an overall average price of \$44.06 per \$100 principal amount. Tenders in response to the current invitation must be received by the railroad by March 20 and notices of acceptance or rejection will be mailed by March 29.

The fixed interest on all obligations delivered pursuant to tender acceptances will be paid, as part of the purchase price, to April 15. The invitation for tenders is addressed to holders of the Baltimore & Ohio first mortgage 5's of 1948; first mortgage 4's of 1948; Southwestern division 5's of 1950; Pittsburgh, Lake Erie & West Virginia system 4's of 1951; Toledo-Cincinnati division 4's of 1959; also to the refunding and general mortgage series A 5's of 1995, series C 6's of 1995, series D 5's of 2000 and series F 5's of 1996; and the secured 4 per cent notes of 1944. Other issues are the Lincoln Park & Charlotte first mortgage 5's of 1949; Ohio & Little Kanawha first mortgage 5's of 1950; Buffalo, Rochester & Pittsburgh consolidated mortgage 4½'s of 1957; Buffalo & Susquehanna first mortgage 4's of 1963; Cincinnati, Indianapolis & Western first mort-

gage 5's of 1965; West Virginia & Pittsburgh first mortgage 4's of 1990; Cleveland Terminal & Valley first mortgage 4's of 1995; and Allegheny & Western first mortgage 4's of 1998.

CANADIAN PACIFIC.—To Redeem Bonds.—The Canadian Pacific will redeem on April 1, 1943, all the 3 per cent convertible collateral trust bonds due October 1, 1945, outstanding in the amount of \$13,000,000, at \$102 and accrued interest to that date.

CENTRAL OF NEW JERSEY.—Trackage Rights.—In a proposed report in Finance Docket 14079 Examiner Jerome K. Lyle has recommended that the Interstate Commerce Commission deny this road's application for authority to operate under trackage rights over a line of the Reading and over the Lehigh River bridge of the Lehigh & New England in the vicinity of Catasauqua, Pa., to afford it a connection with the Ironton, on the ground that "a more equitable agreement" as to the apportionment of costs should be arrived at, though the purpose of the application is approved.

CHESAPEAKE & OHIO.—Extolled in Alleghany Report.—Declaring that its chief income-producing investment consisted of 1,929,779 shares of Chesapeake & Ohio common stock, the Alleghany Corporation in its annual report for 1942 praised the regularity and stability of the earnings and dividends of this stock and voiced the belief that "Just as the C. & O. flowed smoothly into wartime operation, so should it emerge at the end of the war with plant, equipment and personnel fully ready to meet all demands of America and the post-war world."

Referring to the so-called Stedman plan of reorganization for the Missouri Pacific which was filed with the Interstate Commerce Commission in September, 1937, the report contrasted the average annual earnings of that railroad for the six years 1932-1937, inclusive, amounting to \$11,383,904, with average annual earnings of \$29,704,900 for the preceding six years 1926-1931, inclusive, and asserted that the Stedman plan, when formulated, "expressed a hopeless view of the future, although such a view was not justified by the earlier history of the road."

"Recent earnings," the report continued, "have shown even more clearly how utterly unjustified were the pessimistic assumptions upon which the Stedman plan was grounded. Earnings available for bond interest in 1941 were \$30,604,136; in 1942 they had increased to the striking total of \$66,279,807. . . . Surprising though it may seem in view of recent earnings, the Stedman Committee is still actively pressing its plan in the courts. Nevertheless, our efforts on behalf of your corporation and other investors in junior Missouri Pacific securities now seem to be bearing fruit. In January, 1943, tentative agreement was reached between Alleghany Corporation and the Stedman committee upon the basic terms of a compromise plan of reorganization which may be approved by the other parties in interest within the near future. Thereafter, approval of the compromise plan by the Interstate Commerce Commission and the courts will be necessary.

"But if all parties in interest can be brought into agreement, we are hopeful that progress will be rapid and that the now ten-year-old court proceedings for the reorganization of the Missouri Pacific system will be terminated by late 1943. The specific terms of the new compromise plan cannot yet be publicly announced. Needless to say, however, the new plan will provide for considerably better treatment for the Missouri Pacific securities owned by your corporation than does the Stedman plan."

MISSOURI PACIFIC.—Discussed in Report



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Railway Officers

EXECUTIVE

H. J. McDonald, assistant to the vice-president of the Chesapeake & Ohio, has been appointed assistant to the president of the New York, Chicago & St. Louis (Nickel Plate), with headquarters as before at Cleveland, Ohio.

Henry B. Voorhees, vice-president of the Baltimore & Ohio and the Alton and president of the Baltimore & Ohio, Chicago Terminal, with headquarters at Chicago, has been appointed chief executive officer for the trustee of the Alton, with the same headquarters and with jurisdiction over all departments of that road. Mr. Voorhees will continue also as vice-president at Chicago of the B. & O. and president of the B. & O. C. T.

William J. Rodgers, chairman of the Southwestern Passenger Association at St. Louis, Mo., has retired from active service. **Joseph M. Vonau, Jr.**, assistant general



William J. Rodgers

of Alleghany Corp.—See under "Chesapeake & Ohio" elsewhere herewith.

FLORIDA EAST COAST.—Interest Payment Authorized.—The United States district court at Jacksonville, Fla., is reported to have authorized the payment of the interest coupon due March 1, 1932, the oldest coupon in default, on this railroad's first and refunding 5 per cent bonds, series A, due 1974. Payment of the coupon due September 1, 1931, was authorized last October 1.

NEW YORK, SUSQUEHANNA & WESTERN.—Hearing on Plan of Reorganization.—Corwin E. Dick, of William Wyer & Co., consulting engineers, of Newark, N. J., engaged to study the proposed reorganization plan of the New York, Susquehanna & Western by the National State Bank of Newark, trustee of the railroad's second mortgage 4½ per cent bonds, at a hearing on the proposed plan before R. T. Boyden, examiner for the Interstate Commerce Commission, on February 26, suggested that the claims of holders of those bonds with a principal value of \$1,000,000 be satisfied by 50 per cent in common stock and an equal amount in preferred stock. The reorganization plan filed by the New York Life Insurance Company, the Mutual Benefit Life Insurance Company and the Prudential Insurance Company of America, holders of 30.4 per cent of the railroad's senior bonds, was said to propose settlement of claims of the 4½ per cent bonds by an allocation of 80 per cent in common stock and 20 per cent in preferred stock.

On February 25, H. E. Woodruff, railroad analyst and statistician of the New York Life Insurance Company, testified that the proposed capitalization of \$16,250,000, which represented a ratio of 5.8 per cent to estimated prospective earnings of \$943,000, was 60.37 per cent below the old level of \$41,100,000. The Susquehanna's new debt, he said, would be \$9,000,000, or 40 per cent less than the former \$15,000,000. New securities to be issued would be distributed as follows: Terminal first mortgage 4 per cent bonds, \$2,000,000; first and consolidated mortgage 4 per cent bonds, \$3,000,000; general mortgage 4½ per cent income bonds, \$4,000,000; 5 per cent preferred stock, \$3,000,000; and common stock \$4,250,000. Three reorganization managers would be named to carry out the plan, Mr. Woodruff said, and indicated that the nominees would be E. G. Herendeen, assistant vice-president of the Central Hanover Bank & Trust Co.; Richard K. Paynter, Jr., assistant treasurer of the New York Life Insurance Company, and Nordin H. Green, who acted on behalf of general mortgage bondholders.

Henry K. Norton, executive officer of the Susquehanna, said that the prospects of the railroad's terminal property at Edgewater, N. J., were good. He pointed out that the bulk of the line's traffic was freight originating or terminating at Edgewater, and interchanged along the main line of the Susquehanna with a number of other railroads.

PENNSYLVANIA.—Preliminary Annual Report.—The 1942 annual report of this company shows net income, after interest

and other charges, of \$101,468,793, an increase of \$49,084,835 as compared with the 1941 figure. Of this amount \$30,380,000 was applied to retirement of the company's debt (not including \$11,351,700 of leased lines' debt also retired), \$2,718,231 was transferred to sinking and other funds, \$32,919,385 went to the stockholders in two dividends aggregating 5 per cent, or \$2.50 a share, and the balance of \$35,451,177 was transferred to profit and loss. Selected items from the income statement follow:

| | 1942 | Increase or Decrease Compared with 1941 |
|--|----------------------|---|
| RAILWAY OPERATING REVENUES | \$838,474,623 | +\$224,433,459 |
| TOTAL OPERATING EXPENSES | 554,140,727 | +111,463,451 |
| NET REVENUE FROM OPERATIONS | 284,333,896 | +112,970,008 |
| TAXES | 124,578,802 | +58,419,254 |
| Railway Operating Income | 159,755,094 | +54,550,754 |
| Hire of equipment and joint facility rents | 14,476,750 | +6,374,897 |
| NET RAILWAY OPERATING INCOME | 145,278,344 | +48,175,857 |
| Non-operating Income | 41,096,881* | -504,226 |
| GROSS INCOME | 186,375,225 | +47,671,631 |
| Fixed Charges (rentals paid to leased roads and interest on debt) | 84,906,432 | -1,413,204 |
| NET INCOME | \$101,468,793 | +\$49,084,835 |

* Includes dividend of \$5,000,000 (par value) in securities received from Pennsylvania Company.

SOUTHERN.—Equipment Trust.—This company has applied to the Interstate Commerce Commission for authority to assume liability for \$2,820,000 of equipment trust certificates, series KK, to be applied to the purchase of 1,450 composite type 50-ton hopper cars to cost \$3,770,000.

The Cincinnati, New Orleans & Texas Pacific at the same time applied to the Interstate Commerce Commission for authority to assume liability for \$1,960,000 of equipment trust certificates, series J, to be applied to the purchase of 1,000 composite type high side 50-ton gondolas to cost \$2,620,000.

Average Prices Stocks and Bonds

| | Mar. 2 | Last week | Last year |
|---|--------|-----------|-----------|
| Average price of 20 representative railway stocks.. | 33.73 | 32.10 | 28.04 |
| Average price of 20 representative railway bonds.. | 73.96 | 72.43 | 65.81 |

Dividends Declared

Alabama & Vicksburg.—\$3.00, semi-annually, payable April 1 to holders of record March 8.

Beech Creek.—50c, quarterly, payable April 1 to holders of record March 15.

Carolina, Clinchfield & Ohio.—\$1.25, quarterly, payable April 20 to holders of record April 10.

Dayton & Michigan.—Common, 87½c, semi-annually, payable April 1 to holders of record March 15; 8 Per Cent Preferred, \$1.00, quarterly, payable April 6 to holders of record March 15.

Pittsburgh, Fort Wayne & Chicago.—\$1.75, quarterly, payable April 1 to holders of record March 10; Preferred, \$1.75, quarterly, payable April 6 to holders of record March 10.

St. Louis, Rocky Mountain & Pacific.—Common, \$1.00, irregular; 5 Per Cent Non-Cumulative Preferred, \$5.00, both payable March 10 to holders of record February 23. (Transfer books not closed for these dividends.)

Troy & Bennington.—\$5.00, semi-annually, payable August 2 to holders of record July 24.

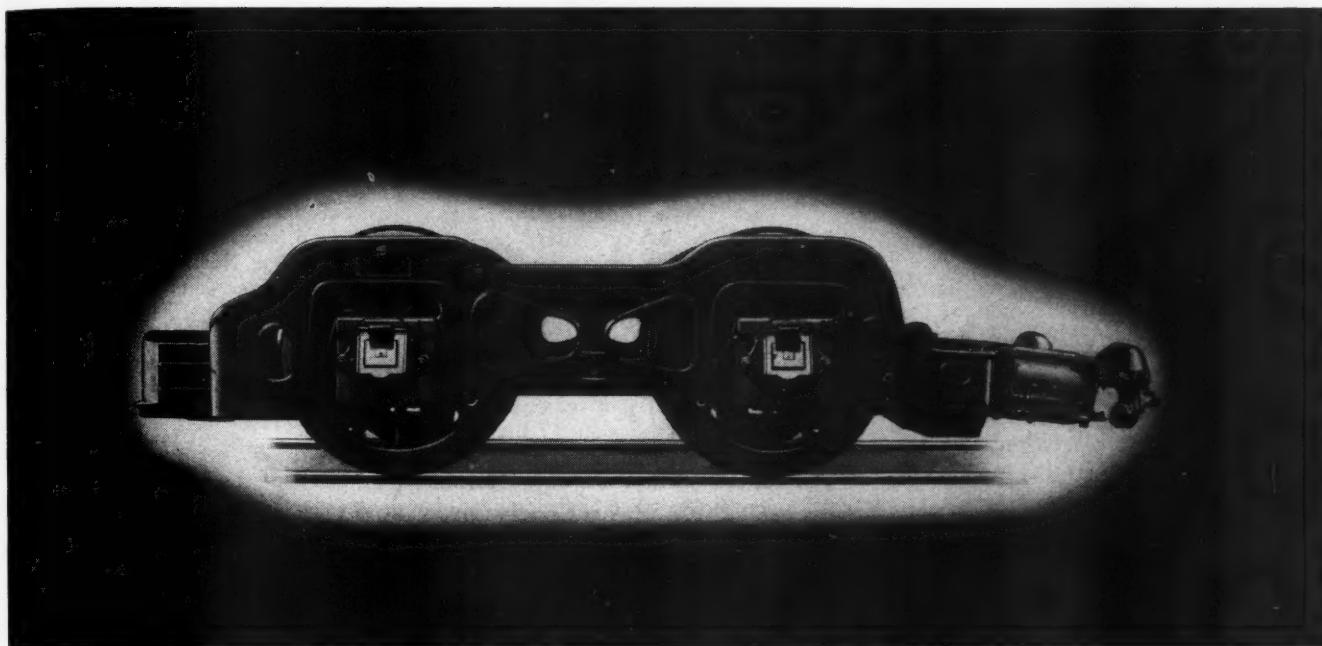
Union Pacific.—Common, \$1.50, quarterly; Preferred, \$2.30, semi-annually, both payable April 1 to holders of record March 8.

Vicksburg, Shreveport & Pacific.—Common, \$2.50, semi-annually; 5 Per Cent Preferred, \$2.50, semi-annually, both payable April 1 to holders of record March 8.

passenger agent of the Texas & New Orleans (Southern Pacific Lines) at Houston, Tex., succeeds Mr. Rodgers as chairman of the association. Born on October 10, 1869, at Macon, Mo., Mr. Rodgers entered railroad service on November 1, 1886, as an employee in the ticket accounting department of the Missouri Pacific. On November 1, 1888, he entered the service of the Missouri, Kansas & Texas (now M-K-T), and on January 16, 1896, he was appointed ticket stock clerk in the passenger department, becoming division clerk in the passenger department of the Missouri-Kansas-Texas on August 1, 1900. He was appointed chief rate clerk, passenger department, on October 1, 1904, holding this position until January 1, 1917, when he was appointed chief clerk in the passenger department. After the termination of Federal Control on February 29, 1920, the Southwestern Passenger Association was re-organized and Mr. Rodgers became assistant to the chairman, which position

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he held until January 1, 1936, when he was appointed chairman.

Mr. Vonau, who was born on September 28, 1901, at New Orleans, La., attended Loyola and Tulane universities at New Orleans. He entered railroad service on January 15, 1917, as office boy in the passenger traffic department of the Southern Pacific Lines at New Orleans, and on October 15, 1917, he was advanced to clerk and stenographer, becoming passenger rate clerk in the passenger traffic department in



J. M. Vonau, Jr.

October, 1923. He was promoted to chief rate clerk at New Orleans in September, 1925, and in February, 1928, he was transferred to Houston. On October 1, 1939, Mr. Vonau became assistant general passenger agent at Houston, and was occupying this position at the time of his appointment to the chairmanship of the Southwest Passenger Association.

H. A. Connell, who retired as assistant vice-president of operations of the Union Pacific in 1941, has been appointed to succeed John G. Nolte as director of the railway terminal division of railway transport, ODT, in charge of Utah and Wyoming operations, with headquarters at Salt Lake City, Utah. Mr. Nolte will go to Sacramento, Calif., to open a similar office. Mr. Connell is entirely familiar with the local railroad picture in the territory where he will serve, having been at one time superintendent of the U. P.'s mountainous Wyoming division operating over the continental divide between Cheyenne and Ogden. Mr. Connell retired in 1941 after 50 years of railroad service.

FINANCIAL, LEGAL AND ACCOUNTING

William W. Suggs has been appointed district claim agent of the re-established Watertown district of the New York Central, with headquarters at Watertown, N. Y. The Watertown district includes the St. Lawrence division to and including Pulaski, N. Y., and to, but not including, Rome, N. Y., and Remsen, heretofore part of the Syracuse district.

H. H. Antrim, freight accountant of the Delaware, Lackawanna & Western, has been promoted to auditor of revenues, with

headquarters at Scranton, Pa., succeeding Edward Ross, whose death is reported elsewhere in these pages. Mr. Antrim, a native of Wyoming, Pa., entered the employ of the Delaware, Lackawanna & Western on March 28, 1902, as a clerk in the local freight office. In April, 1904, he



H. H. Antrim

became a ticket agent at Susquehanna, Pa., and two months later he was appointed clerk in the freight station at West Pittston, Pa. He was appointed relief agent and operator on the Scranton division in July, 1908, and on September 16, 1909, he became clerk in the office of the auditor of revenues at Scranton, being advanced to chief clerk of miscellaneous accounts in June, 1921.

Mr. Antrim was promoted to freight accountant on May 16, 1929, and remained in this capacity until his recent appointment as auditor of revenues.

OPERATING

E. J. Jones has been appointed trainmaster of the Hudson and Mohawk divisions of the New York Central.

J. N. Fraine, roadmaster of the Canadian Pacific at Ft. William, Ont., has been promoted to assistant superintendent, with headquarters at Lethbridge, Alta.

F. A. Pouliot, acting superintendent of the Canadian Pacific at Woodstock, N. B., has been appointed assistant to the general superintendent, with headquarters at Montreal, Que.

R. H. Carter, division engineer of the Chicago Terminal of the Illinois Central, has been promoted to assistant terminal manager, with headquarters as before at Chicago.

S. J. Lawrence has been appointed assistant superintendent of the joint Nashville (Tenn.) terminals of the Louisville & Nashville and the Nashville, Chattanooga & St. Louis.

F. R. Doud, superintendent of the Kansas City division of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Ottumwa, Iowa, has been transferred to the Hastings and Dakota division, succeeding W. J. Hotchkiss, who had been granted a leave of absence to enter military

service. W. C. Givens, former superintendent at Tacoma, Wash., who has been on a leave of absence due to ill health, replaces Mr. Doud at Ottumwa.

J. P. Strickland has been appointed terminal trainmaster of the Virginian with headquarters at Sewalls Point, Va., with jurisdiction extending from Suffolk, Va., to Sewalls Point and including the Norfolk freight and passenger terminal.

E. B. Wheaton, a conductor of the Minnesota division of the Chicago Great Western, has been promoted to trainmaster, with headquarters at St. Paul, Minn., succeeding Harry Boller, who has been advanced to assistant personnel officer, with headquarters at Chicago.

C. K. Carter, Jr., whose appointment as superintendent of the Georgia Southern & Florida, with headquarters at Macon, Ga., was announced in the *Railway Age* of February 6, was born at Danville, Va., and was educated at North Carolina State College. Mr. Carter entered railroad service as a section laborer on the Danville division of the Southern in 1921. After serving as inspector junior engineer, apprentice foreman, assistant supervisor, extra gang



C. K. Carter, Jr.

foreman and supervisor, he was appointed trainmaster at Columbia, S. C., in December, 1934. Mr. Carter was transferred to Spartanburg, S. C., in August, 1936, and to Greensboro, N. C., on April 1, 1938, remaining at the latter point until his recent appointment.

H. J. Taylor has been appointed acting assistant superintendent of the St. Louis-San Francisco, in charge of the Kansas City and Ash Grove sub-divisions, with headquarters at Fort Scott, Kan. He succeeds Quin Baker, whose transfer to Fort Smith, Ark., was reported in the *Railway Age* of February 13.

Willis C. Pruett, whose promotion to superintendent of the Northwestern district of the Missouri-Kansas-Texas, with headquarters at Wichita Falls, Tex., was reported in the *Railway Age* of February 13, was born at Aberdeen, Miss., on December 3, 1891, and graduated from the Sam Houston College, Huntsville, Tex., in 1913. He entered railroad service on June 1, 1913, with the maintenance of way department of



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the M-K-T, at Smithville, Tex., and in September, 1917, was promoted to yardmaster, with headquarters at Denison, Tex., being granted leave of absence two months later to serve with the Army during World War I. Mr. Pruett returned to the M-K-T in January, 1919, and was appointed instru-



Willis C. Pruett

mentman, with headquarters at Dallas, Tex. In July, 1921, he was advanced to roadmaster at Smithville, and in October, 1924, he was promoted to district engineer, with headquarters at Waco, Tex., being transferred to Muskogee, Okla., five years later. In 1931 Mr. Pruett was appointed general foreman, with the same headquarters and in October, 1936, he was advanced to district engineer at Smithville, holding that position until his new appointment, effective January 10.

M. R. Black, inspector of safety of the Louisville & Nashville at Lexington, Ky., has been promoted to assistant trainmaster, with headquarters at Loyall, Ky., while **James T. Alexander**, yardmaster at North Hazard, Ky., has been appointed assistant trainmaster with headquarters at Hazard, Ky.

W. C. Horner, assistant division superintendent of the Denver & Rio Grande Western, with headquarters at Salt Lake City, Utah, has been transferred to Helper, Utah, and the Salt Lake City position has been abolished. **C. V. Colstadt**, assistant trainmaster at Salt Lake City, has been promoted to trainmaster with the same headquarters.

B. F. Wells, superintendent of the Rock Island division of the Chicago, Rock Island & Pacific, has been transferred to the Missouri-Kansas division, with headquarters at Kansas City, Mo., succeeding **Clarence C. Fertig**, who has been transferred to the Oklahoma division, with headquarters at El Reno, Okla. He replaces **B. R. Drew**, who has been transferred to the Des Moines division, with headquarters at Des Moines, Iowa, succeeding **J. H. Johnson**, who replaces Mr. Wells at Rock Island, Ill.

Effective March 1, the Akron-Chicago division of the Baltimore & Ohio has been divided into two divisions, with the West-

ern end becoming the Chicago division and the Eastern end the Akron division. **John Purdy**, assistant superintendent of the Akron-Chicago division, has been promoted to superintendent of the Indianapolis division, succeeding **R. C. Diamond**, who has been transferred to the Newark division, relieving **C. T. Williams**, who has been transferred to the new Chicago division, with headquarters at Garrett, Ind. **John Edwards**, superintendent of the Akron-Chicago division, will continue as superintendent of the Akron division, with headquarters as before at Akron, Ohio.

Arthur G. Garrett, whose promotion to superintendent of the Southern division of the Kansas City Southern, with headquarters at Shreveport, La., was reported in the *Railway Age* of February 20, was born at Fultonham, Ohio, on June 30, 1892, and graduated from the Fultonham Academy in 1906. He entered railway service in that year as a section laborer of the Zanesville & Western (now part of the New York Central) and held several positions with that road until 1909, when he became a brakeman of the Lake Erie & Western



Arthur G. Garrett

(now part of the New York, Chicago & St. Louis), at Lima, Ohio. He served as night yardmaster at Tipton, Ind., in 1913, and two years later was advanced to general yardmaster, with the same headquarters. In 1920 Mr. Garrett became trainmaster of the Akron, Canton & Youngstown at Akron, Ohio, and in 1922 he joined the Detroit, Toledo & Ironton, serving in various positions until 1926, when he resigned to enter the construction field. In 1930 he became general agent of the Louisiana & Arkansas, with headquarters at Detroit, Mich. Mr. Garrett became transportation inspector of the K. C. S. in 1939, and one year later he was promoted to trainmaster of the Northern division, with headquarters at Heavener, Okla. On August 11, of the same year, he was advanced to acting superintendent of the Southern division, the position he held at the time of his new appointment, effective February 1.

E. S. Reed, division superintendent of the Pennsylvania at Baltimore, Md., has been appointed assistant to the general manager, Eastern region. **J. A. Schwab**, superintendent of freight transportation of the Eastern region at Philadelphia, Pa., has been appointed superintendent of the

Maryland division, and **C. J. Henry**, division superintendent at Toledo, Ohio, has been appointed superintendent of freight transportation of the Eastern region. (A photograph and a biographical sketch of Mr. Schwab and of Mr. Henry appeared in the *Railway Age* of August 29, 1942, page 361, and the *Railway Age* of March 21, 1942, page 632, respectively.) **Marion Streett**, freight trainmaster of the Maryland division has been promoted to superintendent of the Monongahela division, with headquarters at Pittsburgh, Pa., succeeding **H. D. Kruggel**, who has been transferred to the Toledo division. **E. W. Headland** has been appointed assistant superintendent of the Maryland division. **O. K. Albaugh**, assistant trainmaster of the Conemaugh division, has been transferred to the Cleveland division, succeeding **H. L. Lodge, Jr.**, who has been appointed night trainmaster of the Maryland division. **E. J. Donovan**, a conductor on the Monongahela division, succeeds Mr. Albaugh as assistant trainmaster of the Conemaugh division. **James H. Litty**, supervisor of station service, has been promoted to supervising agent of the Eastern division, succeeding **F. D. Perrine**, who is entering military service.

TRAFFIC

Edward C. Thomas, general agent of the Pacific Electric, with headquarters at Los Angeles, Cal., has retired after 37 years service.

K. C. Gardner, acting agent of the Chicago, Indianapolis & Louisville, has been promoted to general agent in charge of the agencies at Louisville and New Albany, Ind., with headquarters as before at Louisville.

William Blocker, traffic agent of the Chicago Great Western, with headquarters at Chicago, has been promoted to general agent, with headquarters at Milwaukee, Wis., succeeding **H. F. Biallas**, whose transfer to New York was reported in the *Railway Age* of February 6.

Henry W. Coffman, general westbound agent of the New York Central at Chicago, has been promoted to industrial agent, with the same headquarters, succeeding **George E. Smith**, whose death on January 8 was reported in the *Railway Age* of January 23.

Paul H. Draver, district freight agent of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Milwaukee, Wis., has been promoted to assistant general freight agent, with the same headquarters, succeeding **E. A. Lalk**, whose death was reported in the *Railway Age* of February 6.

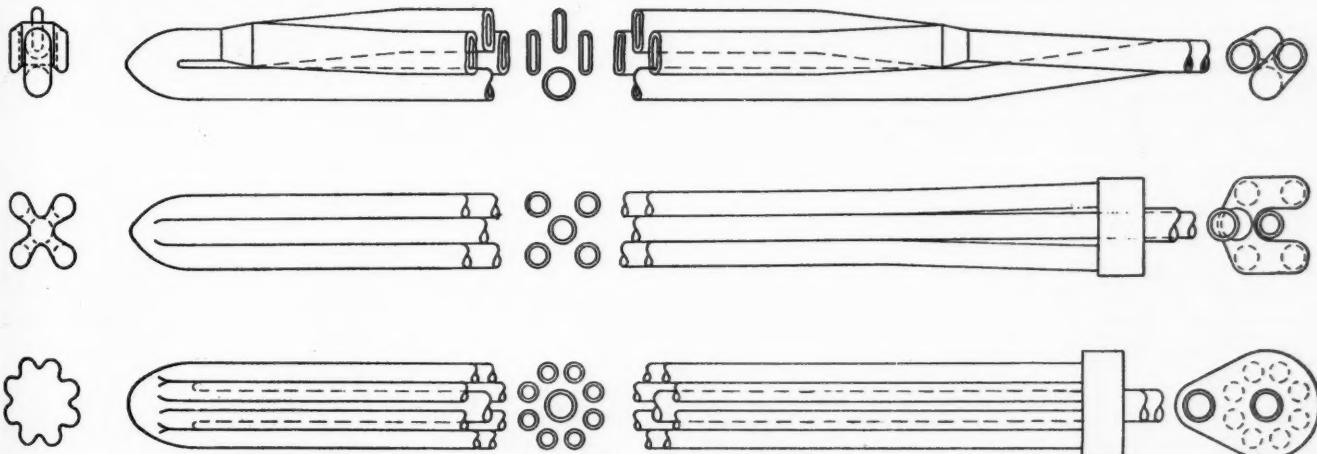
Chester J. Henry, superintendent of the Toledo division of the Pennsylvania, has been promoted to superintendent of freight transportation of the Eastern region, succeeding **J. A. Schwab**, who has been appointed superintendent of the Maryland division, with headquarters at Baltimore, Md. Mr. Schwab relieves **E. S. Reed**, who has been appointed assistant to

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the general manager of the Eastern region, with headquarters at Philadelphia, Pa. **Henry D. Kruggel**, superintendent of the Monongahela division, with headquarters at Pittsburgh, Pa., has been transferred to the Toledo division, replacing Mr. Henry.

C. E. Cameron, district passenger agent of the Canadian Pacific at St. John, N. B., has been appointed assistant general passenger agent at Montreal, Que. **H. F. Nelson**, chief clerk in the general passenger department at Montreal, has been appointed district passenger agent at St. John, succeeding Mr. Cameron.

E. W. Crabbe, chief rate clerk of the Southern Pacific Lines in Texas and Louisiana at Houston, Tex., has been promoted to assistant general passenger agent in charge of rates and tariffs, with the same headquarters, succeeding **J. M. Vonau, Jr.**, whose appointment as chairman of the Southwestern Passenger Association at St. Louis, Mo., is reported elsewhere in these columns.

R. E. Deremiah, assistant general freight agent of the Chicago, Indianapolis & Louisville, has been promoted to assistant general passenger agent, a newly-created position, with headquarters as before at Louisville, Ky. **A. G. Manske**, traveling freight agent, with headquarters at Milwaukee, Wis., has been appointed acting general agent, with the same headquarters, succeeding **Walter F. Smith**, who has been granted a leave of absence to enter the military service.

Carl W. Evers, assistant traffic manager of the Northwestern district of the Union Pacific, with headquarters at Portland, Ore., has been promoted to traffic manager with the same headquarters, succeeding **H. E. Lounsbury**, who has retired after 55 years railroad service. Mr. Evers was born at Council Bluffs, Iowa, on March 4, 1896, and entered railway service in July, 1914, as a clerk-stenographer in the operating department of the Union Pacific at Council Bluffs. During the war he served with the U. S. Army, but returned in August, 1919, as secretary to the assistant general freight agent at Omaha. In March, 1920, he was promoted to secretary to the passenger traffic manager, and in November, 1922, he was appointed secretary to the assistant to the vice-president. In October, 1923, he was promoted to assistant chief clerk in the traffic department, and on February 1, 1927, he was appointed traveling freight agent at Sioux City, Iowa. On December 31, 1927, he was advanced to general agent at that point, and on November 15, 1935, he was transferred to Omaha, where he served as general agent in the freight department. Mr. Evers was promoted to assistant general freight agent on August 20, 1938, and five days later was advanced to general freight agent. On March 1, 1941, he was advanced to the position he held at the time of his new appointment, effective March 1.

Mr. Lounsbury was born at Deer Lodge, Mont., on February 2, 1873, and entered railroad service in 1887 as a clerk of the Oregon Railroad & Navigation Company

(now part of the Union Pacific) at Portland and served in a number of capacities with the same headquarters until 1898 when he became traveling freight agent of the Southern Pacific at Portland, being advanced to district freight agent in 1906. In 1907 Mr. Lounsbury became general agent of the Harriman Lines at Portland,

cessively as instrumentman and assistant engineer on location, maintenance and valuation work. From 1931 to 1943, Mr. Gallier served as assistant engineer, with headquarters at Chicago, holding that position until his new appointment effective February 1.

L. H. Powell, assistant engineer of the Atchison, Topeka & Santa Fe at Chicago, has been promoted to assistant to the chief engineer, system, with the same headquarters.

J. F. Zanolio, division engineer of the Denver & Rio Grande Western, with headquarters at Grand Junction, Colo., has been transferred to Salt Lake City, Utah, relieving **A. L. Kleine** who has been transferred to Grand Junction.

John L. Beckel, assistant engineer in the office of the engineer of structures of the New York Central, Lines Buffalo and East, has been promoted to engineer of bridges in the maintenance of way department of the Lines Buffalo and East, with headquarters as before at New York, to succeed **Allan W. Carpenter**, who has retired, effective March 1.



C. W. Evers

and four years later he was appointed general freight agent of the Southern Pacific, with the same headquarters. From 1912 to 1939 he served as general freight agent of the U. P. at Portland and on February 1, 1940, he was promoted to the position he held at the time of his retirement.

ENGINEERING & SIGNALING

Charles H. Sandberg, assistant engineer in the bridge department of the Atchison, Topeka & Santa Fe at Chicago, has been promoted to assistant bridge engineer of the system, with the same headquarters.

George W. Gallier, whose promotion to assistant chief engineer of the Lines East of the Missouri River of the Chicago, Bur-



John L. Beckel

Mr. Beckel was born on September 30, 1903, at Brooklyn, N. Y., and was graduated from Brooklyn Polytechnic Institute in 1925, with a degree in civil engineering. In that year he entered the service of the Brooklyn-Manhattan Transit Company as a designer in the office of the chief engineer, which position he held for four years. In 1929, Mr. Beckel went with the New York Central as assistant engineer in the office of the engineer of structures at New York, which position he held until his recent promotion to engineer of bridges.

Mr. Carpenter was born on February 28, 1873, at Port Henry, N. Y., and obtained his higher education at the University of Wisconsin and the Case School of Applied Science, obtaining a bachelor of science degree in 1895 and the degree of Civil Engineer in 1908. During summer vacations while attending college, Mr. Carpenter held minor engineering positions with various railroads and a private engineering concern. In 1895 he joined the Osborn Company, civil engineers of Cleveland, Ohio, where he remained for five years. At the end of this period he entered the service



George W. Gallier

lington & Quincy, with headquarters at Chicago, was reported in the *Railway Age* of January 30, was born at Bowling Green, Ohio, on November 4, 1884, and graduated in civil engineering from Ohio Northern University in 1909. He entered railway service in September, 1909, as a rodman of the C. B. & Q., and to 1931 he worked suc-

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(Duplex Cylinders and Valves
Sectional Packing)
Cylinder Snap Rings
Valve Rings All Shapes
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of the New York Central as an assistant engineer. In 1902, he was appointed division supervisor of bridges and buildings, and in the following year he was advanced to division engineer. From 1904 to 1913, he served as engineer of bridges and engineer of structures, then being appointed assistant valuation engineer. In 1932, Mr. Carpenter was appointed engineer of bridges in the maintenance of way department of the Lines Buffalo and East, which position he held until his retirement.

In the *Railway Age* of February 13 Frank A. Howard, engineer of structures of the Erie, was incorrectly reported as having retired. Mr. Howard has been appointed consulting engineer of structures, with headquarters as before at Cleveland, Ohio.

MECHANICAL

H. G. Miller, assistant mechanical engineer of the Chicago, Milwaukee, St. Paul & Pacific, has been promoted to mechanical engineer, with headquarters as before at Milwaukee, Wis., succeeding C. H. Bility, whose retirement was reported in the *Railway Age* of February 20. V. L. Green has been appointed assistant mechanical engineer, succeeding Mr. Miller.

OBITUARY

J. G. Swalwell, who retired as auditor of the Canadian National express accounts on September 1, 1932, died on February 20 at Montreal, Que., at the age of 75.

George H. Asper, who retired in 1939 as assistant general passenger agent of the Chicago, Rock Island & Pacific, died at Chicago on February 24.

Clinton H. McKay, general attorney of the Southern Lines of the Illinois Central, with headquarters at Memphis, Tenn., died suddenly on January 19 at Memphis. Mr. McKay was born at Hannibal, Mo., on July 29, 1889, and entered railroad service on June 11, 1906, as an office boy of the Yazoo & Mississippi Valley, (now part of the Illinois Central) at Memphis, being promoted to secretary of the general solicitor's office one year later. In 1913, he was advanced to attorney of the I. C. and the Y. & M. V., with the same headquarters, and in January, 1928, he was promoted to assistant general attorney of both roads. In June, 1932, Mr. McKay was advanced to the position he held at the time of his death.

J. R. Kearney, retired assistant to the vice-president in charge of operations of the Baltimore & Ohio, died on March 1 at Baltimore, Md. Born at Altoona, Pa., on March 29, 1859, Mr. Kearney entered railroad service in 1876 as clerk in the car record office of the Pennsylvania. From March 1, 1880, to May 1, 1881, he was employed in the car record office of the Illinois Central, and in the car record offices of the Illinois Midland (now part of Pennsylvania), the St. Paul, Minneapolis & Manitoba (now part of Great Northern) and the Great Northern. In 1899 he went to Baltimore as assistant superintendent of trains of the Baltimore & Ohio, and on September 20, 1910, he was ad-

vanced to superintendent of transportation, becoming general superintendent of transportation on July 1, 1914. Mr. Kearney was appointed assistant to the vice-president on March 1, 1920, and retired from active service in April, 1938, after 62 years of railroad service.

William A. Cole, general counsel of the Boston & Maine at Boston, Mass., died suddenly on March 2 at a hospital at Concord, N. H. Mr. Cole was born on June 5, 1887, at Kennebunk, Me., and attended the local schools there. He was graduated from Harvard university in 1909, and from Harvard Law school in 1912. Mr. Cole had been associated in various capacities with the railroad's legal department for more than 25 years and became general attorney of the road in 1930, to which post he was promoted from general solicitor. He was appointed general counsel in Au-

who was born in England on October 8, 1883, entered railroad service in the United States as a clerk in the office of the auditor of freight accounts of the Missouri Pacific, and later served the Wabash in a similar capacity at St. Louis, Mo. In May, 1908, he became a clerk in the office of the auditor of revenues of the Delaware, Lackawanna & Western at New York, and he was transferred to Scranton when the accounting office was moved to that city in October, 1908. In September, 1918, Mr. Ross became chief clerk of the office, in May, 1919, he was appointed freight accountant and in May, 1929, he was promoted to auditor of freight and passenger revenues. Mr. Ross was the first regional director of the Lackawanna's Business Development Program, inaugurated in October, 1935, to broaden the influence of the railroad in its communities, stabilize employment and provide opportunities for the employees and members of their families.

Thomas F. Darden, vice-president in charge of accounts and freight claims of the Atlantic Coast Line at Wilmington, N. C., died at his home in Wilmington on February 25. Born on July 11, 1870, at Hamilton, N. C., Mr. Darden entered railroad service in 1888 as a clerk and telegraph operator of the Atlantic Coast Line. In 1891, he became agent-chief clerk in the general office of the Wilmington, New Bern & Norfolk (now Atlantic Coast Line) remaining in that position until 1897, when he became cashier-manager of the New York Dock Company, Terminal Railway, at Brooklyn, N. Y. In 1903 he joined the Old Dominion Steamship Company as chief clerk-assistant auditor, with headquarters at New York, and in 1909 he was appointed examiner of the bureau of accounts of the Interstate Commerce Commission at Washington, D. C., subsequently becoming assistant chief examiner of the bureau of accounts. In 1913, Mr. Darden re-entered the employ of the Atlantic Coast Line as special accountant at Wilmington,



William A. Cole

gust, 1939. For many years prior to his promotion to the head of the department, he had handled all the railroad's commerce work and had represented the road before the Interstate Commerce Commission and the various state regulatory bodies in New England.

Bertram H. Mann, who retired in 1939 as consulting signal engineer of the Missouri Pacific, died on January 1 at his home at Webster Groves, Mo. Mr. Mann was born at Weymouth, Mass., on November 15, 1866, and in 1890 he graduated in electrical engineering from the Massachusetts Institute of Technology. He entered railroad service in July, 1883, as a telegrapher of the Old Colony, (now part of the New York, New Haven & Hartford), later serving as station agent until 1886 when he entered train service. In 1890 he was employed by the Union Switch & Signal Company, and one year later became superintendent of signals of the Cincinnati, New Orleans & Texas Pacific, (now part of the Southern). In 1899 Mr. Mann was appointed signal engineer of the Chicago & Alton (now the Alton) and in 1903 he became signal engineer of the Missouri Pacific, with headquarters at St. Louis, Mo. On January 1, 1927, Mr. Mann was advanced to the position he held at the time of his retirement.

Edward Ross, auditor of freight and passenger revenues of the Delaware, Lackawanna & Western at Scranton, Pa., died at that city on February 25. Mr. Ross,

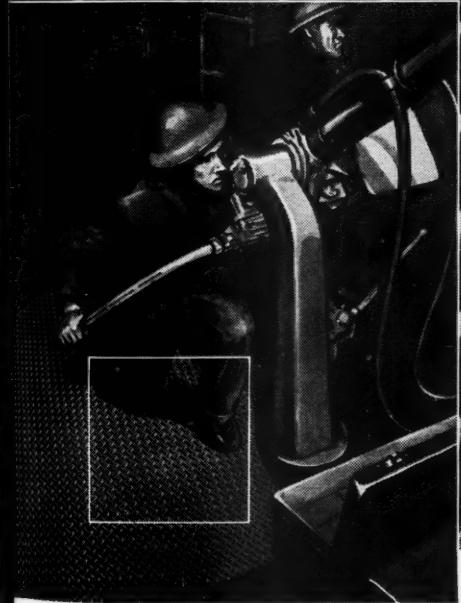


Thomas F. Darden

and in 1914 he was appointed assistant to the president. During the period of Federal Control he was assistant to the federal manager of the Atlantic Coast Line, and in 1920 he was appointed assistant to the executive vice-president of the road. Mr. Darden became vice-president in 1923.

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REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JANUARY OF CALENDAR YEAR 1943

| Name of road | Av. mileage operated during period | | Operating revenues | | Maintenance of Way and Equipment structures | | Operating expenses | | Operating ratio | Net from railway operation | Operating income | Net railway operating income | |
|---|------------------------------------|------------------------|--------------------|------------|---|-----------|--------------------|------------|-----------------|----------------------------|------------------|------------------------------|---------|
| | Freight | Passenger (inc. misc.) | Total | Traffic | Transportation | Total | Trans- | portation | | | | | |
| Akron, Canton & Youngstown | 171 | \$308,938 | \$129 | \$320,214 | \$39,809 | \$31,080 | \$17,059 | \$94,021 | \$195,662 | 61.1 | \$124,552 | \$60,748 | |
| Alton | 1,959 | 3,092,039 | 627,746 | 3,092,455 | 369,335 | 378,736 | 1,075,502 | 1,075,502 | 1,292,933 | 56.9 | 849,833 | 576,500 | |
| Atlanta, Atchison, Topeka & Santa Fe System | 13,160 | 26,546,994 | 6,688,472 | 35,564,254 | 3,007,615 | 4,867,951 | 948,822 | 9,198,922 | 18,084,663 | 50.9 | 5,414,140 | 4,985,742 | |
| Atlanta & West Point | 93 | 259,889 | 111,502 | 408,259 | 29,589 | 36,954 | 10,105 | 129,595 | 222,002 | 54.4 | 186,257 | 40,370 | |
| Western of Alabama | 133 | 275,017 | 126,033 | 433,870 | 33,374 | 41,534 | 9,866 | 133,190 | 232,582 | 53.6 | 201,288 | 63,258 | |
| Atlanta, Birmingham & Coast | 639 | 548,555 | 56,188 | 630,981 | 80,317 | 77,848 | 25,109 | 421,441 | 66.8 | 209,340 | 127,880 | 82,867 | |
| Atlantic Coast Line | 9,991 | 9,173,173 | 2,973,657 | 12,859,217 | 903,207 | 1,467,964 | 160,575 | 3,260,039 | 6,134,628 | 47.7 | 6,724,589 | 2,224,589 | |
| Charleston & Western Carolina | 1,343 | 324,526 | 111,273 | 340,547 | 57,832 | 54,195 | 10,821 | 10,033,596 | 19,853,33 | 58.3 | 142,014 | 57,914 | |
| Baltimore & Ohio | 6,150 | 22,900,840 | 2,801,158 | 26,718,158 | 2,678,970 | 5,306,299 | 365,977 | 8,946,197 | 18,223,781 | 67.2 | 8,914,377 | 5,489,888 | |
| Staten Island Rapid Transit | 24 | 209,740 | 106,683 | 323,657 | 29,637 | 24,410 | 5,844 | 100,747 | 174,690 | 54.0 | 148,967 | 93,831 | |
| Bangor & Aroostook | 602 | 711,905 | 61,609 | 798,378 | 121,864 | 110,397 | 46,877 | 149,174 | 200,973 | 58.7 | 172,346 | 82,749 | |
| Bessemer & Lake Erie | 214 | 965,654 | 2,039 | 982,755 | 122,616 | 785,284 | 254,851 | 1,215,128 | 123,6 | -232,370 | -295,164 | -174,604 | |
| Boston & Maine | 1,825 | 4,709,870 | 1,377,076 | 6,642,039 | 992,733 | 1,037,776 | 71,695 | 2,490,469 | 4,814,038 | 72.5 | 1,828,001 | 1,104,643 | |
| Burlington, Rock Island & Cambria & Indiana | 228 | 1,533,401 | 55,263 | 1,588,839 | 26,160 | 26,587 | 2,680 | 79,589 | 112,365 | 67.5 | 71,665 | 60,541 | |
| Canadian Pacific Lines in Maine | 90 | 83,991 | 15,903 | 115,502 | 27,117 | 68,683 | 659 | 19,130 | 70,16 | 70.6 | 47,751 | 30,739 | |
| Canadian Pacific Lines in Vermont | 1,815 | 2,010,598 | 511,442 | 2,739,312 | 307,169 | 383,843 | 67,008 | 944,642 | 1,820,354 | 66.5 | 918,958 | 609,977 | |
| Central of Georgia* | 1,302 | 13,638,661 | 1,602,732 | 15,681,405 | 1,492,817 | 2,780,894 | 204,470 | 3,645,371 | 8,562,691 | 54.6 | 7,118,74 | 2,505,410 | |
| Central of New Jersey | 658 | 3,989,164 | 592,610 | 4,914,722 | 554,331 | 824,391 | 50,441 | 2,157,203 | 3,715,672 | 75.6 | 1,199,050 | 611,705 | |
| Central Vermont | 422 | 551,632 | 72,000 | 663,461 | 84,452 | 110,735 | 9,857 | 277,958 | 504,852 | 76.1 | 158,609 | 122,787 | |
| Chesapeake & Ohio | 3,092 | 13,638,661 | 1,602,732 | 15,681,405 | 1,492,817 | 2,780,894 | 204,470 | 3,645,371 | 8,562,691 | 54.6 | 7,118,74 | 2,505,410 | |
| Chicago & Eastern Illinois | 912 | 1,775,800 | 485,294 | 2,466,496 | 224,421 | 374,711 | 60,081 | 806,839 | 1,555,754 | 63.1 | 910,742 | 593,742 | |
| Chicago & North Western | 131 | 492,537 | 1,324 | 518,357 | 49,567 | 71,129 | 21,024 | 26,357 | 297,533 | 67.4 | 72,824 | 39,161 | |
| Chicago, Burlington & Quincy | 8,100 | 8,261,478 | 2,034,136 | 11,477,876 | 1,568,600 | 2,016,043 | 194,945 | 4,029,164 | 8,239,612 | 71.8 | 3,238,264 | 1,834,354 | |
| Chicago, Great Western & Louisville | 1,501 | 1,825,213 | 205,836 | 2,025,036 | 294,713 | 266,870 | 62,992 | 816,103 | 1,497,436 | 68.2 | 375,486 | 295,574 | |
| Chicago, Milwaukee, St. Paul & Pacific | 9,040 | 11,607,173 | 2,295,036 | 15,108,175 | 1,550,041 | 2,074,461 | 256,666 | 4,149,679 | 8,502,083 | 56.3 | 6,606,092 | 3,481,291 | |
| Chicago, Rock Island & Pacific | 1,501 | 1,825,213 | 1,324 | 2,025,036 | 294,713 | 266,870 | 62,992 | 816,103 | 1,497,436 | 68.2 | 697,592 | 454,226 | |
| Chicago, St. Paul, Minneapolis & Omaha | 541 | 885,912 | 96,076 | 1,051,654 | 107,794 | 16,033 | 29,700 | 322,397 | 676,168 | 64.3 | 375,486 | 295,574 | |
| Clinchfield Railroad | 10,814 | 12,922,534 | 1,983,895 | 16,206,387 | 1,624,089 | 2,213,381 | 246,204 | 5,240,391 | 9,887,273 | 61.0 | 6,319,114 | 3,744,114 | |
| Colorado & Southern | 7773 | 9,334,310 | 2,833,358 | 13,249,353 | 1,136,878 | 1,737,974 | 310,315 | 4,021,435 | 7,454,404 | 58.5 | 5,503,949 | 3,905,992 | |
| Colorado, Colorado & Southern | 1,629 | 1,648,764 | 272,167 | 2,063,960 | 250,756 | 330,116 | 43,518 | 943,925 | 1,645,171 | 79.7 | 418,789 | 288,442 | |
| Colorado & Wyoming | 308 | 1,083,194 | 10,513 | 1,101,973 | 65,537 | 128,569 | 21,352 | 216,435 | 450,795 | 40.9 | 651,178 | 526,329 | |
| Colorado & Wyoming | 748 | 737,514 | 226,110 | 1,050,295 | 75,164 | 146,469 | 15,710 | 35,513 | 633,333 | 60.3 | 416,962 | 281,511 | |
| Colorado & Wyoming | 804 | 572,875 | 310,398 | 981,574 | 89,393 | 106,830 | 22,710 | 547,059 | 547,059 | 55.7 | 434,515 | 249,185 | |
| Columbus & Greenville | 168 | 115,081 | 7,622 | 131,669 | 5,667,581 | 355,229 | 21,042 | 42,926 | 1,249,885 | 2,663,931 | 75.6 | 860,129 | 501,552 |
| Columbus & Greenville | 848 | 3,264,705 | 159,859 | 3,242,060 | 391,498 | 869,689 | 42,747 | 1,249,885 | 2,663,931 | 75.6 | 860,129 | 501,552 | |
| Delaware, Lackawanna & Western | 984 | 4,216,928 | 835,748 | 5,633,925 | 498,532 | 923,635 | 105,290 | 2,425,389 | 4,140,407 | 73.5 | 1,493,518 | 630,518 | |
| Denver & Rio Grande Western | 2,405 | 4,352,506 | 717,166 | 5,267,581 | 355,229 | 893,942 | 90,331 | 1,575,454 | 3,033,379 | 58.3 | 2,194,202 | 1,934,935 | |
| Denver & Rio Grande Western | 232 | 276,318 | 8,993 | 296,155 | 39,896 | 47,485 | 2,747 | 89,513 | 190,512 | 64.3 | 105,643 | 74,769 | |
| Delaware, Lackawanna & Western | 42 | 103,520 | 7,622 | 161,719 | 10,644 | 13,272 | 800 | 58,648 | 87,884 | 54.3 | 73,835 | 24,769 | |
| Delaware, Lackawanna & Western | 168 | 115,081 | 7,622 | 131,669 | 5,667,581 | 355,229 | 21,042 | 42,926 | 1,249,885 | 2,663,931 | 75.6 | 860,129 | 501,552 |
| Detroit & Mackinac | 242 | 59,554 | 8,498 | 79,177 | 11,681 | 16,379 | 2,225 | 9,086 | 62,936 | 79.5 | 16,241 | 12,182 | |
| Detroit & Toledo Shore Line | 50 | 402,395 | 402,395 | 403,374 | 24,173 | 31,394 | 101,390 | 13,807 | 185,270 | 40.0 | 242,224 | 132,392 | |
| Detroit, Toledo & Ironton | 464 | 761,841 | 996 | 818,454 | 82,913 | 82,913 | 13,807 | 13,807 | 406,813 | 49.7 | 411,641 | 221,649 | |
| Duluth, Missabe & Iron Range | 545 | 96,738 | 3,058 | 141,389 | 221,775 | 3,854 | 234,389 | 974,520 | 689,2 | -833,131 | -901,527 | -846,590 | |
| Duluth, Missabe & Iron Range | 175 | 200,000 | 5,400 | 208,500 | 28,579 | 23,386 | 1,839 | 8,850 | 143,090 | 68.6 | 65,410 | 49,538 | |
| Duluth, Missabe & Iron Range | 392 | 2,300,311 | | 2,727,314 | 203,489 | 786,224 | 15,361 | 954,408 | 2,024,754 | 74.2 | 702,560 | 229,116 | |
| Duluth, Missabe & Iron Range | 175 | 200,000 | 5,400 | 208,500 | 28,579 | 23,386 | 1,839 | 8,850 | 143,090 | 68.6 | 65,410 | 49,538 | |
| Duluth, Missabe & Iron Range | 392 | 2,300,311 | | 2,727,314 | 203,489 | 786,224 | 15,361 | 954,408 | 2,024,754 | 74.2 | 702,560 | 229,116 | |
| Duluth, Missabe & Iron Range | 175 | 200,000 | 5,400 | 208,500 | 28,579 | 23,386 | 1,839 | 8,850 | 143,090 | 68.6 | 65,410 | 49,538 | |
| Duluth, Missabe & Iron Range | 392 | 2,300,311 | | 2,727,314 | 203,489 | 786,224 | 15,361 | 954,408 | 2,024,754 | 74.2 | 702,560 | 229,116 | |
| Duluth, Missabe & Iron Range | 175 | 200,000 | 5,400 | 208,500 | 28,579 | 23,386 | 1,839 | 8,850 | 143,090 | 68.6 | 65,410 | 49,538 | |
| Duluth, Missabe & Iron Range | 392 | 2,300,311 | | 2,727,314 | 203,489 | 786,224 | 15,361 | 954,408 | 2,024,754 | 74.2 | 702,560 | 229,116 | |
| Duluth, Missabe & Iron Range | 175 | 200,000 | 5,400 | 208,500 | 28,579 | 23,386 | 1,839 | 8,850 | 143,090 | 68.6 | 65,410 | 49,538 | |
| Duluth, Missabe & Iron Range | 392 | 2,300,311 | | 2,727,314 | 203,489 | 786,224 | 15,361 | 954,408 | 2,024,754 | 74.2 | 702,560 | 229,116 | |
| Duluth, Missabe & Iron Range | 175 | 200,000 | 5,400 | 208,500 | 28,579 | 23,386 | 1,839 | 8,850 | 143,090 | 68.6 | 65,410 | 49,538 | |
| Duluth, Missabe & Iron Range | 392 | 2,300,311 | | 2,727,314 | 203,489 | 786,224 | 15,361 | 954,408 | 2,024,754 | 74.2 | 702,560 | 229,116 | |
| Duluth, Missabe & Iron Range | 175 | 200,000 | 5,400 | 208,500 | 28,579 | 23,386 | 1,839 | 8,850 | 143,090 | 68.6 | 65,410 | 49,538 | |
| Duluth, Missabe & Iron Range | 392 | 2,300,311 | | 2,727,314 | 203,489 | 786,224 | 15,361 | 954,408 | 2,024,754 | 74.2 | 702,560 | 229,116 | |
| Duluth, Missabe & Iron Range | 175 | 200,000 | 5,400 | 208,500 | 28,579 | 23,386 | 1,839 | 8,850 | 143,090 | 68.6 | 65,410 | 49,538 | |
| Duluth, Missabe & Iron Range | 392 | 2,300,311 | | 2,727,314 | 203,489 | 786,224 | 15,361 | 954,408 | 2,024,754 | 74.2 | 702,560 | 229,116 | |
| Duluth, Missabe & Iron Range | 175 | 200,000 | 5,400 | 208,500 | 28,579 | 23,386 | 1,839 | 8,850 | 143,090 | 68.6 | 65,410 | 49,538 | |
| Duluth, Missabe & Iron Range | | | | | | | | | | | | | |

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JANUARY OF CALENDAR YEAR 1943—CONTINUED

| Name of road | Av. mileage operated during period | Operating revenues | | | Maintenance of equipment | | | Operating expenses | | | Operating ratio | Net from railway operation | Operating income | Net railway operating income |
|---|------------------------------------|--------------------|------------|--------------|--------------------------|-------------|----------------|--------------------|-----------|-------------|-----------------|----------------------------|------------------|------------------------------|
| | | Freight | Passenger | Total | Way and structures | Traffic | Transportation | Total | \$ | \$ | | | | |
| Erie | 2,242 | \$10,328,668 | \$705,190 | \$11,681,967 | \$866,802 | \$1,875,627 | \$204,826 | \$7,256,392 | 62.1 | \$4,425,575 | \$1,917,602 | \$1,635,305 | \$1,462,147 | |
| Florida East Coast | 682 | 1,461,664 | 851,168 | 2,504,573 | 222,903 | 235,433 | 33,866 | 686,118 | 53.8 | 1,157,51 | 702,211 | 671,604 | 192,655 | |
| Georgia Railroad | 329 | 668,628 | 179,190 | 894,765 | 38,191 | 83,680 | 22,179 | 280,684 | 51.8 | 431,315 | 404,279 | 382,067 | 177,520 | |
| Georgia & Florida | 408 | 2,447,000 | 208,000 | 2,800,000 | 358,334 | 419,404 | 34,186 | 1,005,160 | 62.1 | \$1,917,602 | 696,713 | 697,507 | 24,191 | |
| Grand Trunk Western | 1,026 | 2,022,220 | 6,300 | 205,200 | 39,448 | 17,823 | 2,384 | 80,224 | 152,507 | 145.0 | -47,307 | -67,610 | -95,501 | |
| Canadian National Lines in New England | 172 | 210,459 | 52,820 | 282,386 | 67,410 | 33,428 | 2,906 | 89,614 | 71.8 | 79,599 | 59,895 | 40,723 | 7,976 | |
| Great Northern | 8,118 | 9,882,307 | 1,089,523 | 11,911,211 | 1,648,388 | 2,420,847 | 228,120 | 3,653,681 | 77.5 | 3,553,551 | 1,718,312 | 1,659,282 | 15,457 | |
| Green Bay & Western | 234 | 202,220 | 481 | 212,172 | 17,477 | 8,567 | 63,207 | 1,918,724 | 68.3 | 58,280 | 52,132 | 24,814 | | |
| Gulf & Ship Island | 259 | 210,459 | 52,820 | 282,386 | 67,410 | 33,428 | 2,906 | 89,614 | 202,797 | 130,105 | 11,197,722 | 5,825,677 | 3,317,106 | |
| Gulf, Mobile & Ohio | 1,972 | 2,920,438 | 182,765 | 3,190,644 | 444,144 | 443,479 | 84,311 | 874,253 | 61.3 | 1,235,926 | 684,759 | 496,606 | 253,147 | |
| Illinois Central | 4,840 | 13,725,514 | 2,228,055 | 17,023,599 | 2,668,400 | 2,942,483 | 207,792 | 4,890,143 | 65.8 | 1,426,749 | 838,653 | 2,821,983 | 1,692,349 | |
| Illinois Central & Mississippi Valley | 1,525 | 2,822,025 | 381,656 | 3,334,798 | 407,200 | 387,213 | 40,763 | 9,908,049 | 57.2 | 715,244 | 564,584 | | | |
| Illinois Central System | 6,365 | 16,607,539 | 2,709,711 | 20,358,197 | 3,025,600 | 3,329,696 | 248,555 | 5,812,615 | 64.4 | 7,252,426 | 4,705,756 | 3,542,140 | 2,628,846 | |
| Illinois Terminal | 476 | 500,189 | 173,348 | 737,478 | 77,511 | 78,454 | 18,84 | 225,702 | 57.5 | 313,149 | 126,313 | 112,463 | 125,676 | |
| Kansas City Southern | 878 | 2,972,308 | 319,144 | 3,490,840 | 615,059 | 412,411 | 38,828 | 836,948 | 57.9 | 1,469,296 | 811,296 | 570,852 | 339,806 | |
| Kansas, Oklahoma & Gulf | 156 | 36,312 | 195 | 39,538 | 25,505 | 44,109 | 671 | 26,739 | 65.3 | -65,373 | 90,619 | -82,245 | -84,338 | |
| Lake Superior & Ishpeming | 328 | 323,863 | 1,217 | 329,334 | 30,520 | 13,942 | 9,622 | 69,627 | 40.8 | 194,944 | 121,594 | 98,688 | 56,454 | |
| Lehigh & Hudson River | 96 | 230,002 | 223 | 230,985 | 307,335 | 183,648 | 10,800 | 1,204,911 | 265.3 | 1,241,301 | 1,252,423 | 1,247,725 | 125,511 | |
| Louisiana & Arkansas | 1,260 | 5,955,534 | 419,191 | 6,377,301 | 1,204,073 | 1,204,219 | 10,826 | 2,612,799 | 68.4 | 2,172,079 | 1,358,176 | 983,492 | 300,511 | |
| Lehigh Valley | 1,260 | 6,877,379 | 114,677 | 7,092,067 | 1,627,967 | 1,627,967 | 30,848 | 325,496 | 90.7 | 55.8 | 306,154 | 231,596 | 175,893 | |
| Louisville & Nashville | 1,900 | 434,528 | 1,217 | 437,301 | 41,664 | 41,664 | 6,216 | 1,347,40 | 71.6 | 1,241,301 | 1,252,423 | 1,247,725 | 125,511 | |
| Maine Central | 854 | 1,441,677 | 114,677 | 1,558,346 | 173,348 | 173,348 | 10,826 | 1,204,911 | 67.3 | 6,526,846 | 1,960,845 | 1,744,235 | 1,744,235 | |
| Louisiana & Arkansas | 1,260 | 5,955,534 | 419,191 | 6,377,301 | 1,204,073 | 1,204,219 | 10,826 | 2,612,799 | 68.4 | 2,172,079 | 1,358,176 | 983,492 | 300,511 | |
| Midland Valley | 351 | 157,189 | 121 | 161,155 | 21,102 | 11,110 | 1,204,073 | 2,612,799 | 71,598 | 90,685 | 79,451 | 70,528 | 27,083 | |
| Minneapolis & St. Louis | 4,745 | 12,209,696 | 2,811,306 | 15,962,035 | 1,498,864 | 2,584,825 | 19,822 | 4,653,486 | 59.1 | 6,526,846 | 1,762,423 | 1,960,845 | 1,991,171 | |
| Minneapolis, St. Paul & Sauk Ste. Marie | 991 | 1,202,405 | 208,881 | 1,514,455 | 216,102 | 250,750 | 12,140 | 4,935,503 | 67.3 | 49,610 | 26,736 | 247,725 | 247,725 | |
| Duluth, South Shore & Atlantic | 351 | 252,091 | 20,099 | 288,656 | 54,560 | 52,834 | 2,307 | 41,413 | 70,470 | 43,908 | 23,754 | 21,972 | 21,972 | |
| Spokane International | 1,408 | 1,068,871 | 24,959 | 1,132,494 | 114,086 | 162,746 | 61,669 | 385,291 | 67.9 | 363,702 | 291,728 | 299,018 | 211,194 | |
| Missouri-Kansas-Texas Lines | 1,277 | 2,668,559 | 183,746 | 2,852,305 | 497,128 | 612,178 | 71,440 | 1,387,158 | 72,9 | 49,610 | 136,738 | 209,007 | 209,007 | |
| Missouri-Pacific | 550 | 2,668,559 | 183,746 | 2,852,305 | 497,128 | 612,178 | 71,440 | 1,387,158 | 72,9 | 49,610 | 136,738 | 209,007 | 209,007 | |
| Missouri International | 1,734 | 264,337 | 264 | 265,847 | 16,014 | 7,807 | 2,879 | 35,829 | 67.9 | 67,977 | 37,475 | 30,228 | 12,321 | |
| Montour | 152 | 122,708 | 4,750 | 135,693 | 20,984 | 14,144 | 8,113 | 30,539 | 57.1 | 59,663 | 37,475 | 30,228 | 11,277 | |
| Nashville, Chattanooga & St. Louis | 1,293 | 4,987,791 | 2,257,891 | 7,255,891 | 1,152,900 | 2,102,363 | 28,016 | 4,922,695 | 81.0 | 30,538 | 7,743,079 | 5,445,108 | 4,523,411 | |
| Montgomery | 1,734 | 226,449 | 580,457 | 228,389 | 39,556 | 54,131 | 5,971 | 63,801 | 60.9 | 32,927 | 26,105 | 63,969 | 43,321 | |
| Nashville, Chattanooga & St. Louis | 1,090 | 2,391,698 | 3,219,111 | 5,609,811 | 75,071 | 935,971 | 1,953,292 | 60.7 | 1,265,819 | 753,231 | 683,869 | 210,933 | | |
| New York Central | 10,846 | 35,247,471 | 10,344,776 | 50,534,774 | 5,907,475 | 8,619,266 | 677,392 | 18,477,243 | 70.5 | 14,913,927 | 8,140,734 | 6,937,484 | 3,178,567 | |
| Pittsburgh & Lake Erie | 1,233 | 2,626,873 | 98,532 | 2,857,887 | 87,736 | 87,736 | 41,390 | 801,478 | 72.0 | 801,016 | 10,562 | 5,36,455 | 449,997 | |
| New York, Chicago & St. Louis | 1,688 | 7,804,679 | 181,169 | 81,169 | 81,169 | 81,169 | 2,310 | 3,270,337 | 43,734,99 | 53.9 | 37,459,99 | 1,577,124 | 1,094,731 | 1,020,986 |
| New York, New Haven & Hartford | 1,838 | 7,236,855 | 5,297,181 | 13,618,210 | 1,392,813 | 1,783,311 | 144,120 | 4,335,961 | 60.6 | 5,372,560 | 3,266,144 | 2,423,222 | 968,060 | |
| New York, Connecticut & Hartford | 21 | 19,748 | 14,706 | 21,665 | 58,097 | 12,149 | 21,440 | 44,085 | 53.5 | 100,505 | 36,328 | 147,773 | 141,060 | |
| New York, Ontario & Western | 546 | 519,172 | 590,544 | 79,033 | 121,599 | 21,440 | 329,633 | 57,740 | 97.8 | 12,804 | 21,772 | -79,357 | -52,032 | |

Table continued on next left-hand page

REVENUES AND EXPENSES OF RAILWAYS

| Name of road | Month of JANUARY of CALENDAR YEAR 1943—CONTINUED | | | | | | | | | | Net railway operating income 1942 |
|---|--|--------------------------|----------------------------------|------------|------------------|------------|-------------------|------------|------------------------------------|------------------|--------------------------------------|
| | Operating revenues | | Maintenance of Way and Equipment | | Trans- portation | | Operat- ing ratio | | Net from railway operation 1943 | | |
| Av. mileage operated during period | Freight | Pas- senger (inc. misc.) | Total | Traffic | Equip- ment | Total | Trans- | Operat- | Operating income | Operating income | |
| New York, Susquehanna & Western | 262 | \$402,012 | \$42,449 | \$470,406 | \$31,349 | \$181,244 | \$265,715 | 56.5 | \$204,691 | \$148,431 | \$43,114 |
| Norfolk & Western | 2,156 | 10,833,311 | 1,145,243 | 12,350,727 | 2,333,481 | 2,640,368 | 6,521,117 | 52.8 | 5,829,610 | 1,323,306 | 2,050,902 |
| Norfolk Southern | 734 | 55,5286 | 26,269 | 62,087 | 136,109 | 29,198 | 467,021 | 74.7 | 155,066 | 95,503 | 2,263,289 |
| Northern Pacific | 6,867 | 8,247,593 | 979,999 | 10,071,525 | 1,249,835 | 1,859,291 | 168,228 | 3,143,742 | 6,886,003 | 1,548,392 | 1,996,966 |
| Northwestern Pacific | 331 | 393,228 | 15,841 | 129,664 | 48,382 | 2,219 | 3,157,94 | 74.4 | 108,905 | 85,962 | 60,132 |
| Oklahoma City-Ada-Atoka | 132 | 123,03 | 125,273 | 21,389 | 4,295 | 1,463 | 34,415 | 65,745 | 59,528 | 41,478 | —9,551 |
| Pennsylvania | 10,183 | 50,230,322 | 17,773,362 | 73,500,244 | 8,699,323 | 13,144,688 | 994,661 | 28,570,279 | 53,960,344 | 19,539,900 | 8,255,266 |
| Long Island | 378 | 942,666 | 1,207,140 | 2,985,110 | 700,249 | 476,945 | 35,952 | 1,412,362 | 2,679,623 | 306,487 | 7,225,327 |
| Pennsylvania-Reading Seashore Lines | 403 | 382,877 | 210,947 | 623,244 | 136,853 | 110,135 | 6,467 | 391,748 | 671,528 | 48,334 | —175,246 |
| Pere Marquette | 2,032 | 3,796,451 | 264,067 | 4,170,548 | 512,793 | 727,636 | 66,689 | 1,470,157 | 2,910,822 | 624,458 | 520,636 |
| Pittsburgh & Shawmut | 97 | 95,440 | 9,654 | 109,086 | 14,086 | 19,078 | 2,072 | 3,162,746 | 66,056 | 15,458 | 15,313 |
| Pittsburgh & West Virginia | 136 | 607,579 | 79 | 627,018 | 90,127 | 114,408 | 19,016 | 163,217 | 410,916 | 216,102 | 136,945 |
| Pittsburg, Shawmut & Northern | 190 | 107,738 | 730,890 | 109,484 | 15,867 | 23,670 | 1,008 | 42,127 | 88,836 | 81.1 | 14,202 |
| Reading | 1,420 | 7,929,373 | 1,154,082 | 9,104,099 | 878,882 | 1,952,187 | 87,700 | 3,162,746 | 6,301,218 | 2,802,881 | 1,437,731 |
| Richmond, Fredericksburg & Potowmac | 118 | 1,741,574 | 1,154,082 | 3,110,406 | 132,616 | 227,033 | 10,653 | 655,100 | 1,159,323 | 37.3 | 1,360,914 |
| Rutland | 407 | 216,663 | 46,564 | 327,578 | 48,880 | 69,074 | 143,081 | 179,073 | 321,518 | 98.2 | —17,353 |
| St. Louis-San Francisco & Potomac | 159 | 320,213 | 1,674,167 | 7,790,041 | 839,653 | 1,470,170 | 143,611 | 2,629,323 | 5,375,212 | 69.0 | 1,553,746 |
| St. Louis, San Francisco & Texas | 4,184 | 7,688,552 | 3,111,908 | 11,478,994 | 1,001,799 | 2,046,887 | 217,589 | 3,191,271 | 6,301,348 | 2,414,829 | 9,207 |
| Seaboard Air Line | 6,514 | 14,309,517 | 3,882,144 | 19,277,012 | 1,942,066 | 2,665,115 | 9,102 | 9,174 | 5,046,65 | 10,141,556 | 3,140,556 |
| Southern Railway | 315 | 1,430,599 | 318,133 | 1,840,026 | 147,184 | 244,983 | 24,850 | 549,083 | 1,011,860 | 54.9 | 5,177,646 |
| Alabama Great Southern & Texas Pacific | 337 | 2,454,029 | 369,127 | 2,944,872 | 246,556 | 506,740 | 31,808 | 666,556 | 1,547,424 | 52.5 | 888,338 |
| Cincinnati, New Orleans & Texas Pacific | 397 | 346,109 | 161,005 | 547,998 | 74,428 | 35,294 | 2,300 | 152,998 | 281,833 | 51.4 | 266,165 |
| Georgia Southern & Florida | 8,350 | 23,700,106 | 6,552,230 | 171,541 | 1,154,253 | 91,806 | 5,923,03 | 12,623 | 503,695 | 43.6 | 111,768 |
| New Orleans & Northeastern | 204 | 935,848 | 33,006,955 | 3,624,381 | 5,548,316 | 473,349 | 9,975,010 | 21,376,668 | 64.8 | 650,558 | 5,576,066 |
| Southern Pacific Steamship Lines | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. |
| Texas & New Orleans | 4,341 | 7,610,355 | 1,865,017 | 9,993,741 | 1,034,855 | 1,036,259 | 136,921 | 2,346,030 | 4,881,225 | 48.8 | 5,112,516 |
| Spokane, Portland & Seattle | 930 | 1,559,226 | 119,524 | 1,810,691 | 170,336 | 127,221 | 11,775 | 544,903 | 908,947 | 50.2 | 2,869,469 |
| Tennessee Central | 286 | 276,050 | 36,799 | 33,133 | 71,268 | 20,499 | 6,431 | 11,425 | 258,355 | 77.6 | 74,778 |
| Texas & Pacific | 1,903 | 3,267,968 | 1,524,018 | 5,231,270 | 614,635 | 747,287 | 95,727 | 1,255,221 | 2,942,886 | 56.3 | 2,288,384 |
| Texas, New Orleans & San Antonio | 162 | 167,223 | 869 | 199,808 | 22,833 | 12,576 | 3,575 | 34,977 | 82,939 | 41.5 | 116,869 |
| Tennessee Central | 239 | 363,506 | 10 | 365,867 | 30,555 | 20,571 | 21,754 | 73,190 | 137,261 | 43.0 | 208,606 |
| Utah, Colorado & Southern | 9,837 | 24,515,023 | 5,318,971 | 32,344,540 | 4,092,612 | 5,688,236 | 519,378 | 9,440,941 | 21,206,508 | 65.6 | 11,138,032 |
| Virginia & Truckee | 1,111 | 131,801 | 8,006 | 131,818 | 19,046 | 19,5947 | 48,775 | 33,719 | 96,583 | 73,3 | 35,235 |
| Washington & Oregon | 659 | 2,162,635 | 2,245,441 | 195,947 | 48,775 | 24,483 | 21,754 | 1,174,311 | 52.3 | 1,071,130 | 546,130 |
| Union Pacific System | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. |
| Utah, Colorado & Southern | 1,195 | 2,453,168 | 284,117 | 2,898,578 | 309,656 | 416,601 | 74,086 | 946,621 | 1,854,609 | 64.0 | 1,043,969 |
| Western Pacific | 507 | 2,121,045 | 8 | 2,165,045 | 187,791 | 352,268 | 38,901 | 588,130 | 1,214,501 | 56.1 | 950,635 |
| Wabash | 2,393 | 5,986,779 | 788,592 | 7,142,966 | 610,541 | 868,220 | 162,209 | 2,230,163 | 4,100,128 | 57.4 | 3,042,838 |
| Ann Arbor | 294 | 410,206 | 6,308 | 427,855 | 41,518 | 78,671 | 15,101 | 179,808 | 328,141 | 76.7 | 1,369,441 |
| Western Maryland | 848 | 2,846,360 | 23,337 | 2,955,828 | 271,281 | 555,867 | 42,450 | 739,022 | 1,690,721 | 57.4 | 3,042,838 |
| Western Pacific & Lake Erie | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. |
| Wheeler & Lake Erie | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. | Jan. |

Table continued on next left-hand page

Railway Age—March 6, 1943



GLOBE STEEL TUBES IN GLOBAL-WAR SERVICE

The "emergency" found *Globe Steel Tubes* prepared...prepared because *Globe* engineers are veterans of more than 30 years' constant service on the pressure-tube "front."...Concentrating now, as always, on *Globe Quality* steel tubes, we faced no problem of "conversion" to meet the unprecedented demands of industry's war-production power plants...transport, merchant and warships...locomotives and other units of war power-equipment requiring super-quality and 24-hour-a-day operative

ability in boiler tubes, condenser and heat-exchanger tubes, stainless and mechanical tubing.

GLOBE engineers offer their long experience and superior facilities to aid you in selecting steel tubes of proper characteristics for your specific needs.



- * STAINLESS TUBES
- * BOILER TUBES
- * GLOBEIRON TUBING
- * GLOWELD TUBES

- * CONDENSER AND HEAT EXCHANGER TUBES
- * MECHANICAL TUBING

GLOBE STEEL

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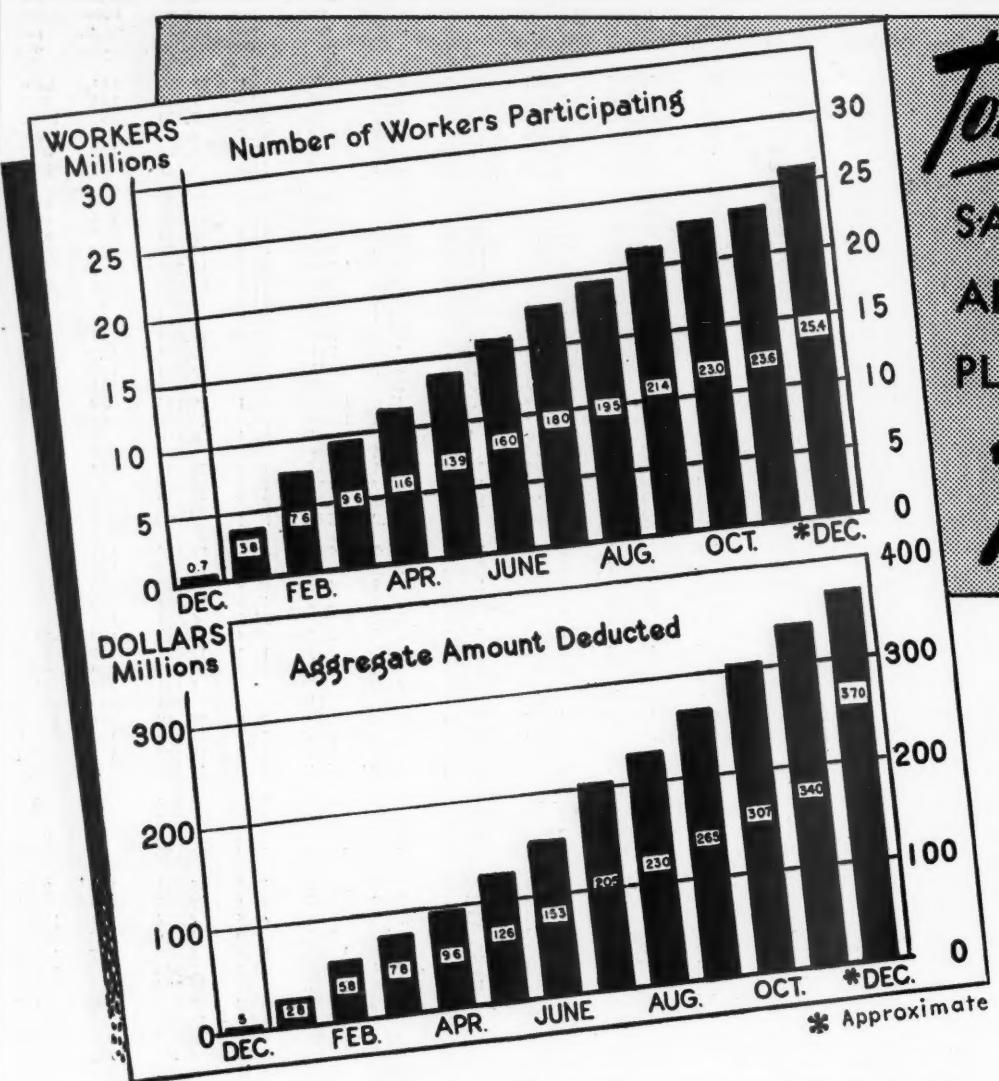
STEEL TUBES CO., Milwaukee, Wisconsin, U.S.A.

Operating Statistics of Large Steam Railways—Selected Items

| Region, road, and year | Miles of road operated | Train-miles | Locomotive-miles | | Car-miles | | Ton-miles (thousands) | | Road locos. on line | | | | |
|---|------------------------|-------------|----------------------|-----------|--------------------|-----------------|------------------------------|-----------------------|---------------------|----------|--------|-------|----------------|
| | | | Principal and helper | Light | Loaded (thousands) | Per cent loaded | Gross excl. locos. & tenders | Net rev. and non-rev. | Serviceable | Unstored | Stored | B. O. | Per cent B. O. |
| New England Region: | | | | | | | | | | | | | |
| Boston & Albany | 1942 | 362 | 173,708 | 210,615 | 40,892 | 4,418 | 58.7 | 313,882 | 132,699 | 67 | 2 | 25 | 26.6 |
| | 1941 | 362 | 155,816 | 167,171 | 55,585 | 3,789 | 66.5 | 220,761 | 83,161 | 59 | 8 | 20 | 23.0 |
| Boston & Maine | 1942 | 1,830 | 379,402 | 463,823 | 52,584 | 12,986 | 62.5 | 898,578 | 394,758 | 156 | | 20 | 11.4 |
| | 1941 | 1,894 | 332,493 | 378,296 | 30,749 | 12,228 | 68.9 | 711,199 | 279,997 | 141 | 11 | 25 | 14.1 |
| N. Y., New H. & Hartf.† | 1942 | 1,816 | 477,533 | 603,162 | 55,337 | 16,667 | 65.2 | 1,080,456 | 478,093 | 230 | 4 | 34 | 18.1 |
| | 1941 | 1,819 | 411,683 | 524,778 | 46,243 | 15,866 | 69.7 | 860,666 | 336,545 | 216 | 3 | 48 | 20.7 |
| Great Lakes Region: | | | | | | | | | | | | | |
| Delaware & Hudson | 1942 | 849 | 301,378 | 352,229 | 42,669 | 11,441 | 65.0 | 760,916 | 362,585 | 131 | 25 | 34 | 14.9 |
| | 1941 | 982 | 348,898 | 411,545 | 59,078 | 14,776 | 65.7 | 1,007,356 | 475,266 | 130 | 24 | 44 | 21.6 |
| Del., Lack. & Western | 1942 | 982 | 365,426 | 415,415 | 58,353 | 15,280 | 71.0 | 903,223 | 381,417 | 144 | 16 | 81 | 20.6 |
| | 1941 | 2,243 | 891,555 | 950,531 | 59,396 | 39,017 | 65.0 | 2,641,820 | 1,165,928 | 293 | 19 | 106 | 25.5 |
| Erie | 1942 | 2,252 | 847,253 | 891,692 | 50,209 | 38,550 | 67.5 | 2,359,083 | 926,947 | 260 | 49 | | |
| | 1941 | 1,026 | 244,043 | 284,269 | 1,662 | 7,130 | 63.8 | 479,217 | 207,919 | 66 | 5 | 10 | 12.3 |
| Grand Trunk Western | 1942 | 1,023 | 274,755 | 279,410 | 2,707 | 8,649 | 62.8 | 541,536 | 199,615 | 77 | | 12 | 13.5 |
| | 1941 | 1,248 | 476,956 | 527,874 | 89,871 | 19,116 | 62.2 | 1,370,551 | 659,845 | 146 | | 11 | 7.0 |
| Lehigh Valley | 1942 | 1,251 | 395,566 | 433,304 | 68,764 | 16,410 | 68.0 | 1,035,399 | 460,541 | 131 | 18 | 36 | 19.5 |
| | 1941 | 10,470 | 3,538,739 | 3,863,164 | 248,335 | 129,553 | 58.7 | 9,583,684 | 4,397,650 | 1,176 | 8 | 208 | 14.9 |
| New York Central | 1942 | 10,518 | 3,325,868 | 3,560,364 | 211,131 | 118,391 | 60.6 | 8,093,312 | 3,479,931 | 1,049 | 94 | 251 | 18.0 |
| | 1941 | 1,657 | 829,148 | 839,341 | 10,323 | 30,138 | 61.7 | 2,116,834 | 952,180 | 160 | | 19 | 10.6 |
| New York, Chi. & St. L. | 1942 | 1,672 | 702,243 | 714,990 | 9,938 | 24,895 | 66.4 | 1,541,866 | 627,427 | 150 | | 15 | 9.1 |
| Pere Marquette | 1942 | 2,016 | 402,228 | 409,123 | 9,172 | 11,842 | 63.0 | 839,762 | 391,715 | 140 | 1 | 21 | 13.0 |
| | 1941 | 2,052 | 408,635 | 419,667 | 8,893 | 11,752 | 63.9 | 750,068 | 299,213 | 137 | 5 | 23 | 13.9 |
| Pitts. & Lake Erie | 1942 | 233 | 94,049 | 98,316 | 150 | 3,807 | 60.9 | 340,142 | 198,220 | 40 | 8 | 9 | 15.8 |
| | 1941 | 232 | 101,542 | 105,030 | 62 | 4,063 | 59.9 | 351,755 | 197,884 | 44 | | 17 | 27.9 |
| Wabash* | 1942 | 2,381 | 799,629 | 825,774 | 17,670 | 27,659 | 63.4 | 1,902,208 | 859,687 | 186 | 7 | 31 | 13.8 |
| | 1941 | 2,397 | 636,042 | 650,227 | 13,068 | 21,973 | 68.5 | 1,308,173 | 509,726 | 141 | 30 | 87 | 33.7 |
| Central Eastern Region: | | | | | | | | | | | | | |
| Baltimore & Ohio | 1942 | 6,209 | 2,404,324 | 2,989,624 | 341,500 | 76,787 | 59.3 | 5,773,446 | 2,743,713 | 910 | 5 | 218 | 19.2 |
| | 1941 | 6,245 | 2,103,529 | 2,636,566 | 291,295 | 67,798 | 61.4 | 4,796,723 | 2,200,947 | 873 | 53 | 222 | 19.3 |
| Central of New Jersey† | 1942 | 659 | 249,462 | 286,532 | 54,411 | 7,914 | 59.7 | 589,463 | 305,255 | 116 | 18 | 22 | 14.1 |
| | 1941 | 661 | 204,058 | 228,961 | 45,445 | 6,418 | 62.6 | 442,028 | 211,675 | 85 | 18 | 41 | 28.5 |
| Chicago & Eastern Ill.† | 1942 | 913 | 195,388 | 199,433 | 5,645 | 5,640 | 62.4 | 396,612 | 185,007 | 58 | | 12 | 17.1 |
| | 1941 | 925 | 186,493 | 187,081 | 3,082 | 5,241 | 67.3 | 333,876 | 151,296 | 63 | 3 | 23 | 25.8 |
| Elgin, Joliet & Eastern | 1942 | 392 | 139,011 | 141,484 | 2,244 | 3,674 | 61.8 | 299,029 | 159,267 | 67 | | 11 | 14.1 |
| | 1941 | 390 | 136,269 | 138,213 | 1,769 | 3,735 | 59.2 | 293,783 | 146,484 | 68 | | 10 | 12.8 |
| Long Island | 1942 | 374 | 35,149 | 36,759 | 20,335 | 388 | 55.7 | 30,168 | 12,797 | 46 | | 6 | 11.5 |
| | 1941 | 375 | 27,368 | 28,571 | 18,192 | 265 | 52.5 | 19,994 | 7,665 | 34 | | 8 | 16.7 |
| Pennsylvania System | 1942 | 9,934 | 4,729,260 | 5,605,797 | 715,801 | 171,601 | 59.4 | 12,866,901 | 6,144,498 | 1,960 | 2 | 158 | 7.5 |
| | 1941 | 9,951 | 4,100,615 | 4,817,051 | 593,404 | 155,798 | 62.4 | 10,790,195 | 4,916,353 | 1,794 | 100 | 241 | 11.3 |
| Reading | 1942 | 1,419 | 590,765 | 660,143 | 84,308 | 18,262 | 61.6 | 1,440,904 | 775,124 | 270 | 12 | 40 | 12.4 |
| | 1941 | 1,430 | 523,817 | 584,319 | 73,359 | 16,082 | 63.0 | 1,165,575 | 582,081 | 253 | 24 | 62 | 18.3 |
| Pocahontas Region: | | | | | | | | | | | | | |
| Chesapeake & Ohio | 1942 | 3,028 | 1,051,014 | 1,126,692 | 54,058 | 46,628 | 54.0 | 4,142,476 | 2,273,960 | 414 | 2 | 90 | 17.8 |
| | 1941 | 3,053 | 994,176 | 1,052,771 | 46,252 | 46,464 | 56.0 | 3,933,626 | 2,152,837 | 398 | 14 | 80 | 16.3 |
| Norfolk & Western | 1942 | 2,137 | 802,349 | 851,616 | 63,583 | 33,692 | 55.7 | 3,009,229 | 1,604,034 | 316 | 12 | 17 | 4.9 |
| | 1941 | 2,163 | 760,210 | 798,344 | 46,079 | 34,998 | 57.2 | 2,990,000 | 1,584,334 | 301 | 11 | 23 | 6.9 |
| Southern Region: | | | | | | | | | | | | | |
| Atlantic Coast Line | 1942 | 4,984 | 969,227 | 994,425 | 13,130 | 25,367 | 62.3 | 1,761,784 | 797,165 | 338 | 11 | 23 | 6.2 |
| | 1941 | 5,031 | 745,478 | 754,242 | 10,516 | 17,799 | 63.4 | 1,109,582 | 442,607 | 291 | 5 | 39 | 11.6 |
| Central of Georgia† | 1942 | 1,783 | 322,784 | 328,425 | 5,302 | 7,388 | 65.9 | 504,265 | 228,645 | 105 | | 11 | 9.5 |
| | 1941 | 1,783 | 310,388 | 314,449 | 5,389 | 7,211 | 70.8 | 433,635 | 186,459 | 102 | | 17 | 14.3 |
| Gulf, Mobile & Ohio | 1942 | 1,959 | 374,947 | 472,191 | 4,090 | 12,091 | 66.7 | 822,649 | 393,391 | 115 | | 8 | 6.5 |
| | 1941 | 1,962 | 272,438 | 324,654 | 2,515 | 9,000 | 70.1 | 540,977 | 234,745 | 96 | 3 | 9 | 8.3 |
| Illinois Central (incl. Yazoo & Miss. V.) | 1942 | 6,377 | 1,766,902 | 1,777,312 | 36,365 | 61,106 | 58.6 | 4,541,466 | 2,079,920 | 621 | 3 | 56 | 8.2 |
| Louisville & Nashville | 1942 | 4,736 | 1,562,079 | 1,720,571 | 44,750 | 37,956 | 60.3 | 2,859,646 | 1,445,176 | 576 | 41 | 95 | 13.3 |
| Seaboard Air Line* | 1942 | 4,214 | 929,759 | 1,037,207 | 10,095 | 24,269 | 66.7 | 1,649,169 | 767,829 | 290 | | 28 | 8.8 |
| | 1941 | 4,295 | 795,539 | 844,552 | 8,578 | 19,753 | 63.7 | 1,271,631 | 523,940 | 274 | | 31 | 10.2 |
| Southern | 1942 | 6,469 | 2,074,188 | 2,118,510 | 30,535 | 44,151 | 63.5 | 3,006,350 | 1,347,934 | 581 | | 88 | 13.2 |
| | 1941 | 6,474 | 1,827,157 | 1,860,928 | 27,743 | 41,015 | 65.2 | 2,530,779 | 1,067,615 | 555 | | 110 | 16.5 |
| Northwestern Region: | | | | | | | | | | | | | |
| Chi. & North Western† | 1942 | 8,122 | 1,022,190 | 1,074,440 | 23,405 | 31,778 | 64.1 | 2,193,762 | 985,118 | 349 | 32 | 105 | 21.6 |
| | 1941 | 8,280 | 977,743 | 1,011,926 | 20,716 | 31,895 | 63.3 | 2,036,067 | 829,270 | 328 | 36 | 211 | 36.7 |
| Chicago Great Western† | 1942 | 1,447 | 269,000 | 274,349 | 6,636 | 7,999 | 66.3 | 537,583 | 233,327 | 74 | | 11 | 12.9 |
| Chi., Milw., St. P. & Pac.† | 1942 | 10,813 | 1,487,042 | 1,567,804 | 68,852 | 45,340 | 63.3 | 3,190,388 | 1,467,892 | 507 | 38 | 72 | 11.7 |
| Chi., St. P., Minnep. & Om. | 1942 | 1,618 | 213,305 | 229,622 | 10,884 | 5,335 | 65.2 | 365,480 | 161,589 | 104 | 13 | 114 | 18.2 |
| | 1941 | 1,618 | 234,648 | 248,456 | 11,039 | 6,065 | 67.6 | 375,162 | 155,463 | 104 | 16 | 9 | 7.0 |
| Duluth, Missabe & I. R. | 1942 | 546 | 149,949 | 150,628 | 920 | 6,844 | 50.9 | 604,123 | 361,779 | 47 | | 2 | 4.1 |
| | 1941 | 541 | 123,358 | 123,948 | 1,170 | 6,803 | 51.4 | 576,354 | 340,160 | 47 | | 3 | 6.0 |
| Great Northern | 1942 | 8,022 | 1,197,576 | 1,200,576 | 39,689 | 42,337 | 65.7 | 3,072,603 | 1,445,431 | 405 | 23 | 63 | 12.8 |
| | 1941 | 7,981 | 1,138,282 | 1,135,968 | 35,015 | 40,515 | 62.9 | 2,799,938 | 1,226,824 | 382 | 28 | 85 | 17.2 |
| Min., St. P. & S. St. M.† | 1942 | 4,258 | 437,663 | 446,273 | 7,235 | 10,802 | 62.0 | 748,623 | 337,512 | 135 | 2 | 8 | 5.5 |
| | 1941 | 4,251 | 453,625 | 462,684 | 7,305 | 11,638 | 65.2 | 744,141 | 322,925 | 133 | | 8 | 5.7 |
| Northern Pacific | 1942 | 6,586 | 960,050 | 1,030,730 | 71,422 | 36,605 | 72.1 | | | | | | |

for the Month of November, 1942, Compared With November, 1941

| Region, road, and year | Freight cars on line | | | G.t.m. per train-hr. | | G.t.m. per train-mi. | | Net ton-mi. per train-mile | Net ton-mi. per car-mile | Net ton-mi. per car-day | Car miles per car-day | Net daily ton-mi. per road-mi. | Coal 1,000 g.t.m. inc. loco. | Mi. lb. per loco. per day |
|---|----------------------|---------|---------|----------------------|--------------------------|--------------------------|-------|----------------------------|--------------------------|-------------------------|-----------------------|--------------------------------|------------------------------|---------------------------|
| | Home | Foreign | Total | Per Cent B. O. | excl. locos. and tenders | excl. locos. and tenders | | | | | | | | |
| New England Region: | | | | | | | | | | | | | | |
| Boston & Albany | 1942 | 400 | 5,435 | 5,835 | 0.3 | 28,245 | 1,815 | 767 | 30.0 | 689 | 39.1 | 12,219 | 153 | 96.0 |
| | 1941 | 598 | 5,294 | 5,892 | .6 | 24,380 | 1,432 | 539 | 21.9 | 476 | 32.6 | 7,658 | 145 | 75.7 |
| Boston & Maine | 1942 | 3,098 | 9,490 | 12,588 | 2.0 | 34,302 | 2,267 | 996 | 30.4 | 979 | 51.5 | 7,191 | 95 | 105.6 |
| | 1941 | 3,213 | 9,799 | 13,012 | 2.7 | 30,936 | 2,144 | 844 | 22.9 | 690 | 43.7 | 4,928 | 94 | 82.8 |
| N. Y., New H. & Hartf. ^t | 1942 | 3,919 | 16,470 | 20,389 | 1.2 | 32,731 | 2,297 | 1,016 | 28.7 | 762 | 40.8 | 8,776 | 100 | 88.2 |
| | 1941 | 4,296 | 17,254 | 21,550 | 2.9 | 30,419 | 2,122 | 830 | 21.2 | 512 | 34.6 | 6,167 | 103 | 78.5 |
| Great Lakes Region: | | | | | | | | | | | | | | |
| Delaware & Hudson | 1942 | 6,681 | 4,299 | 10,980 | 2.8 | 46,286 | 2,828 | 1,469 | 38.3 | 1,450 | 59.3 | 18,883 | 104 | 68.9 |
| | 1941 | 6,120 | 4,908 | 11,028 | 4.9 | 40,852 | 2,544 | 1,212 | 31.7 | 1,052 | 51.1 | 14,236 | 105 | 58.2 |
| Del., Lack. & Western | 1942 | 7,741 | 9,125 | 16,866 | 2.9 | 47,325 | 2,913 | 1,374 | 32.2 | 936 | 44.3 | 16,133 | 115 | 87.5 |
| | 1941 | 8,928 | 8,826 | 18,754 | 3.1 | 42,623 | 2,496 | 1,054 | 25.0 | 710 | 40.0 | 12,947 | 126 | 81.8 |
| Erie | 1942 | 11,861 | 22,739 | 34,600 | 2.4 | 50,789 | 2,978 | 1,314 | 29.9 | 1,122 | 57.7 | 17,327 | 94 | 92.5 |
| | 1941 | 12,518 | 22,763 | 35,281 | 2.4 | 48,920 | 2,805 | 1,102 | 24.0 | 883 | 54.3 | 13,720 | 95 | 82.7 |
| Grand Trunk Western | 1942 | 2,932 | 6,428 | 9,360 | 3.8 | 39,898 | 1,976 | 857 | 29.2 | 778 | 41.8 | 6,755 | 90 | 110.1 |
| | 1941 | 3,296 | 8,389 | 11,685 | 3.8 | 37,119 | 1,986 | 732 | 23.1 | 562 | 38.8 | 6,504 | 87 | 113.9 |
| Lehigh Valley | 1942 | 9,491 | 19,201 | 28,692 | 1.4 | 49,876 | 2,973 | 1,431 | 34.5 | 809 | 37.7 | 17,624 | 110 | 138.4 |
| | 1941 | 7,192 | 15,629 | 22,821 | .9 | 48,476 | 2,668 | 1,187 | 28.1 | 711 | 37.2 | 12,271 | 112 | 96.6 |
| New York Central | 1942 | 54,502 | 82,947 | 137,449 | 3.2 | 42,982 | 2,742 | 1,258 | 33.9 | 1,055 | 52.9 | 14,001 | 100 | 109.0 |
| | 1941 | 66,142 | 75,127 | 141,269 | 5.8 | 40,575 | 2,455 | 1,056 | 29.4 | 810 | 45.5 | 11,028 | 101 | 100.4 |
| New York, Chi. & St. L. | 1942 | 3,999 | 13,454 | 17,453 | 2.1 | 46,463 | 2,559 | 1,151 | 31.6 | 1,814 | 93.1 | 19,155 | 89 | 164.5 |
| Pere Marquette | 1942 | 4,234 | 7,015 | 11,249 | 3.2 | 41,516 | 2,199 | 895 | 25.2 | 1,254 | 74.9 | 12,509 | 94 | 153.9 |
| | 1941 | 5,925 | 8,558 | 14,483 | 2.7 | 31,709 | 1,845 | 736 | 25.5 | 691 | 42.5 | 4,861 | 99 | 97.0 |
| Pitts. & Lake Erie | 1942 | 4,775 | 7,838 | 12,613 | 4.2 | 48,063 | 3,629 | 2,115 | 52.1 | 546 | 17.2 | 28,358 | 92 | 63.1 |
| | 1941 | 8,305 | 8,310 | 16,615 | 8.3 | 44,616 | 3,472 | 1,953 | 48.7 | 431 | 14.8 | 28,432 | 87 | 64.5 |
| Wabash* | 1942 | 8,393 | 12,897 | 21,290 | 1.0 | 44,448 | 2,411 | 1,090 | 31.1 | 1,296 | 65.7 | 12,035 | 109 | 129.5 |
| | 1941 | 8,979 | 12,379 | 21,358 | .9 | 41,725 | 2,084 | 812 | 23.2 | 833 | 52.4 | 7,088 | 112 | 90.0 |
| Central Eastern Region: | | | | | | | | | | | | | | |
| Baltimore & Ohio | 1942 | 44,893 | 45,320 | 90,213 | 2.3 | 31,015 | 2,450 | 1,164 | 35.7 | 985 | 46.5 | 14,730 | 141 | 102.7 |
| | 1941 | 48,651 | 38,722 | 87,373 | 2.5 | 30,877 | 2,323 | 1,066 | 32.5 | 829 | 41.6 | 11,748 | 144 | 90.1 |
| Central of New Jersey† | 1942 | 7,955 | 14,730 | 22,685 | 1.0 | 30,389 | 2,406 | 1,246 | 38.6 | 449 | 19.5 | 15,440 | 136 | 96.5 |
| | 1941 | 6,663 | 17,387 | 24,050 | 2.0 | 29,110 | 2,259 | 1,082 | 33.0 | 295 | 14.3 | 10,674 | 139 | 83.3 |
| Chicago & Eastern Ill. ^t | 1942 | 1,977 | 3,785 | 5,762 | 2.8 | 33,059 | 2,102 | 981 | 32.8 | 1,078 | 52.6 | 6,755 | 125 | 102.0 |
| | 1941 | 2,485 | 3,940 | 6,425 | 3.2 | 32,156 | 1,810 | 820 | 28.9 | 822 | 42.3 | 5,452 | 127 | 74.9 |
| Elgin, Joliet & Eastern | 1942 | 8,391 | 10,211 | 18,602 | 2.5 | 17,831 | 2,225 | 1,185 | 43.3 | 303 | 11.3 | 13,543 | 135 | 90.5 |
| | 1941 | 8,881 | 8,512 | 17,393 | 3.4 | 16,506 | 2,217 | 1,105 | 39.2 | 282 | 12.2 | 12,520 | 128 | 92.8 |
| Long Island | 1942 | 21 | 4,177 | 4,198 | .4 | 6,795 | 870 | 369 | 33.0 | 105 | 5.7 | 1,141 | 327 | 49.6 |
| | 1941 | 49 | 3,309 | 3,358 | .7 | 5,534 | 749 | 287 | 28.9 | 71 | 4.6 | 681 | 323 | 45.5 |
| Pennsylvania System | 1942 | 134,305 | 111,594 | 245,899 | 2.4 | 35,767 | 2,792 | 1,334 | 35.8 | 829 | 39.0 | 20,618 | 116 | 107.0 |
| | 1941 | 150,058 | 98,058 | 248,116 | 6.3 | 37,957 | 2,698 | 1,229 | 31.6 | 664 | 33.7 | 16,469 | 109 | 92.4 |
| Reading | 1942 | 17,527 | 19,008 | 36,535 | 3.2 | 30,907 | 2,444 | 1,315 | 42.4 | 714 | 27.3 | 18,208 | 122 | 87.6 |
| | 1941 | 17,117 | 20,986 | 38,103 | 6.5 | 27,271 | 2,233 | 1,115 | 36.2 | 521 | 22.8 | 13,568 | 133 | 76.4 |
| Pocahontas Region: | | | | | | | | | | | | | | |
| Chesapeake & Ohio | 1942 | 39,133 | 14,625 | 53,758 | 1.5 | 56,654 | 4,001 | 2,196 | 48.8 | 1,429 | 54.3 | 25,033 | 76 | 85.4 |
| | 1941 | 44,388 | 15,533 | 59,921 | .9 | 57,221 | 3,993 | 2,185 | 46.3 | 1,237 | 47.7 | 23,505 | 74 | 83.2 |
| Norfolk & Western | 1942 | 32,772 | 6,781 | 39,553 | 1.6 | 58,925 | 3,819 | 2,035 | 47.6 | 1,369 | 51.6 | 25,020 | 92 | 95.5 |
| | 1941 | 33,538 | 6,151 | 39,689 | 1.7 | 61,924 | 3,989 | 2,114 | 45.3 | 1,356 | 52.3 | 24,416 | 87 | 90.8 |
| Southern Region: | | | | | | | | | | | | | | |
| Atlantic Coast Line | 1942 | 9,021 | 17,945 | 26,966 | 3.3 | 29,575 | 1,824 | 826 | 31.4 | 1,003 | 51.2 | 5,331 | 108 | 97.1 |
| | 1941 | 10,867 | 10,370 | 21,237 | 5.6 | 25,638 | 1,493 | 596 | 24.9 | 695 | 44.1 | 2,933 | 109 | 81.4 |
| Central of Georgia† | 1942 | 2,679 | 6,374 | 9,053 | 1.3 | 27,951 | 1,575 | 714 | 30.9 | 846 | 41.5 | 4,275 | 121 | 103.7 |
| | 1941 | 3,001 | 5,040 | 8,041 | .9 | 26,605 | 1,411 | 607 | 25.9 | 732 | 40.0 | 3,486 | 122 | 96.9 |
| Gulf, Mobile & Ohio | 1942 | 2,847 | 6,756 | 9,603 | 1.0 | 38,469 | 2,206 | 1,055 | 32.5 | 1,341 | 61.8 | 6,694 | 117 | 135.2 |
| | 1941 | 2,852 | 5,278 | 8,130 | 2.1 | 35,979 | 1,991 | 864 | 26.1 | 946 | 51.8 | 3,988 | 112 | 106.9 |
| Illinois Central (incl. Yazoo & Miss. V.) | 1942 | 21,003 | 31,968 | 52,971 | 1.1 | 40,343 | 2,612 | 1,196 | 34.0 | 1,293 | 64.9 | 10,872 | 115 | 92.9 |
| | 1941 | 26,929 | 25,263 | 52,192 | 1.1 | 34,587 | 2,139 | 936 | 29.5 | 951 | 51.8 | 7,505 | 126 | 81.2 |
| Louisville & Nashville | 1942 | 32,079 | 16,480 | 48,559 | 1.6 | 27,186 | 1,831 | 925 | 38.1 | 1,020 | 44.4 | 10,172 | 130 | 128.4 |
| | 1941 | 36,103 | 12,393 | 48,496 | 1.7 | 27,593 | 1,784 | 869 | 35.0 | 859 | 40.7 | 8,417 | 126 | 117.5 |
| Seaboard Air Line* | 1942 | 8,369 | 17,508 | 25,877 | 1.8 | 28,057 | 1,822 | 848 | 31.6 | 999 | 47.3 | 6,074 | 123 | 124.6 |
| | 1941 | 9,857 | 12,348 | 22,205 | 2.1 | 27,576 | 1,637 | 675 | 26.5 | 799 | 47.3 | 4,066 | 125 | 104.4 |
| Southern | 1942 | 17,779 | 29,070 | 46,849 | 2.0 | 24,389 | 1,466 | 657 | 30.5 | 976 | 50.4 | 6,946 | 147 | 112.1 |
| | 1941 | 19,596 | 25,798 | 45,394 | 4.1 | 23,632 | 1,401 | 591 | 26.0 | 791 | 46.6 | 5,497 | 144 | 99.4 |
| Northwestern Region: | | | | | | | | | | | | | | |
| Chi. & North Western† | 1942 | 23,844 | 26,646 | 50,490 | 3.8 | 33,655 | 2,208 | 991 | 31.0 | 622 | 31.3 | 4,043 | 125 | 78.0 |
| | 1941 | 30,706 | 25,836 | 56,542 | 4.3 | 31,502 | 2,151 | 876 | 26.0 | 496 | 30.1 | 3,338 | 123 | 64.8 |
| Chicago Great Western† | 1942 | 1,550 | 3,685 | 5,235 | 1.3 | 36,503 | 2,002 | 869 | 29.2 | 1,452 | 75.1 | 5,375 | 124 | 115.1 |
| | 1941 | 1,717 | 4,015 | 5,732 | 2.0 | 36,340 | 1,920 | 724 | 23.6 | 1,175 | 77.2 | 4,770 | 120 | 126.2 |
| Chi., Milw., St. P. & Pac.† | 1942 | 30,209 | 21,604 | 51,813 | 1.3 | 34,351 | 2,161 | 994 | 32.4 | 939 | 45.8 | 4,525 | 122 | 94.9 |
| | 1941 | 35,573 | 22,767 | 58,340 | 1.3 | 33,423 | 2,063 | 875 | 28.1 | 716 | 40.8 | 3,844 | 118 | 88.8 |
| Chi., St. P., Minneap. & Om. | 1942 | 1,641 | 6,891 | 8,532 | 4.7 | 24,498 | 1,737 | 768 | 30.3 | 611 | 30.9 | 3,329 | 113 | 63.7 |
| | 1941 | 2,076 | 6,753 | 8,829 | 4.1 | 22,470 | 1,620 | 671 | 25.6 | | | | | |



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